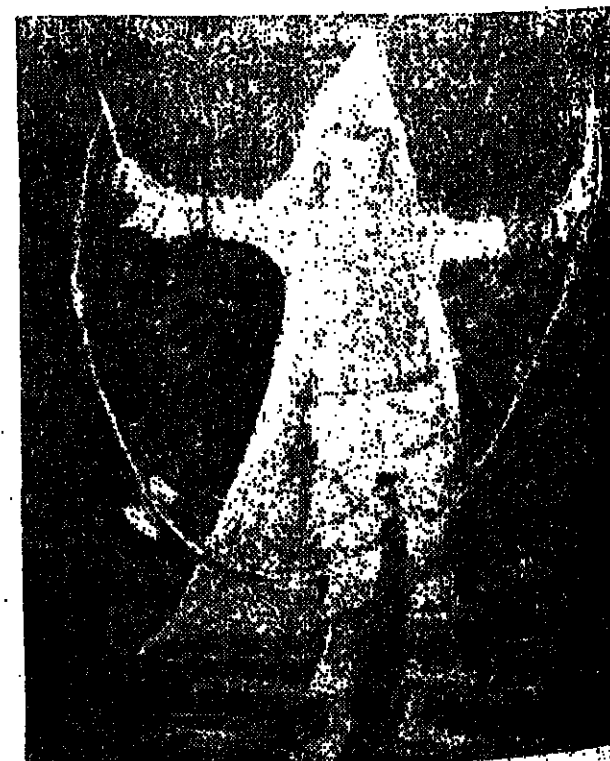




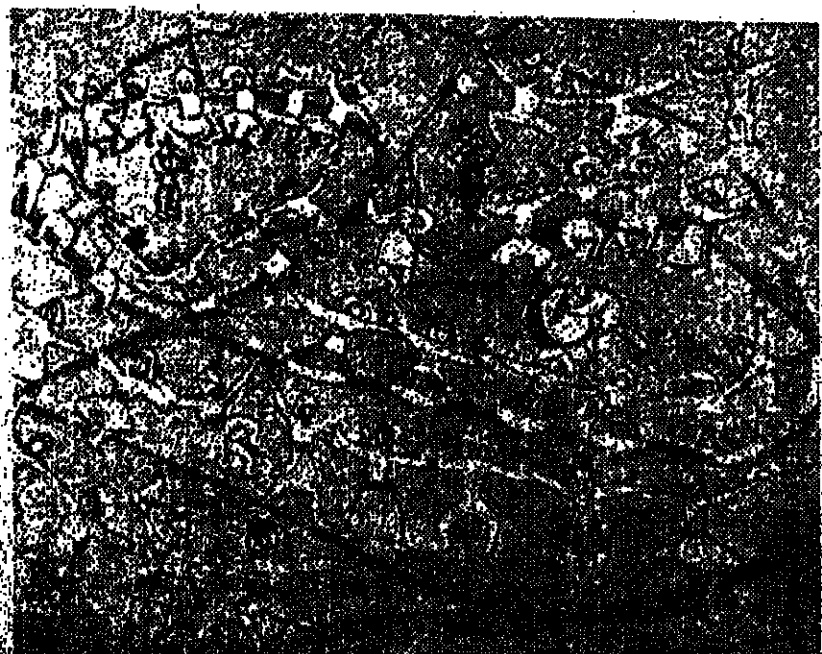
Witnessing a period of complex artistic unrest — which sometimes turned into violent extremism — painter Magdalena Radulescu (b. 1903, Rimnicu Vilcea) was not subdued by any trend. She had the chance to travel in Europe and America, which helped her better know the tendencies of graphic art after World War I. Therefore she had direct contact with fauvism and surrealism, primitivism and constructivism, but she adopted, from these movements only that which fitted her own personality. Because the real base of her art was Romanian folk art, the world of autochthonous mythology, folk tales, folk sources. Surpassing narrow academic formalism, the artist knew how to pave her own way, adopting a modern outlook and proposing an original style through which reality was essentially changed. It is a world of old folk tales, of country celebrations, of fairy tales with Princesses.

Charming and princesses, with horses and outlaws, of „chilari”, dances, legends and circus scenes, of Oriental scenes (she spent her childhood in Constantinople), of carnivals, masks or dreams. In one word, a special universe, including her among the important Romanian painters of the 20th century. In fact, since her first exhibitions, at home or abroad, the critics discovered the profile of this graphic creation, the painter's undeniable originality. An exegete like Jacques Lacombe wrote: „Magdalena Radulescu's whole work is inspired from Romanian folklore, considered not as an element of historical or decorative research, but as a repertoire of architectural forms. In her canvases there is no anecdotal or picturesque elements, only a sort of return to the wonderful, basic harmonies.”

VLADIMIR UDRESCU



In our photos, reproductions of Magdalena Radulescu's paintings: „Portrait” (Margareta Stelian), „Giannotti's Portrait”, „United Colour Bearers” (top); „Girl's Head”, „Game with Diabele” (right); „Dancing”, „Singers” (bottom); „The Fairy Tale Princess” (Self-Portrait) „Maiden” (middle).



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ROMANIAN NEWS



INFORMATION AND COMMENTARY WEEKLY PUBLISHED BY THE ROMANIAN NEWS AGENCY AGERPRES

INVESTMENT AS PART OF THE POLICY OF BALANCED TERRITORIAL DEVELOPMENT

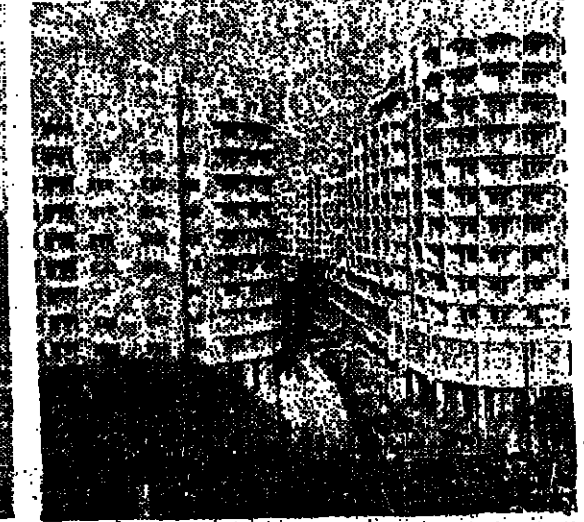
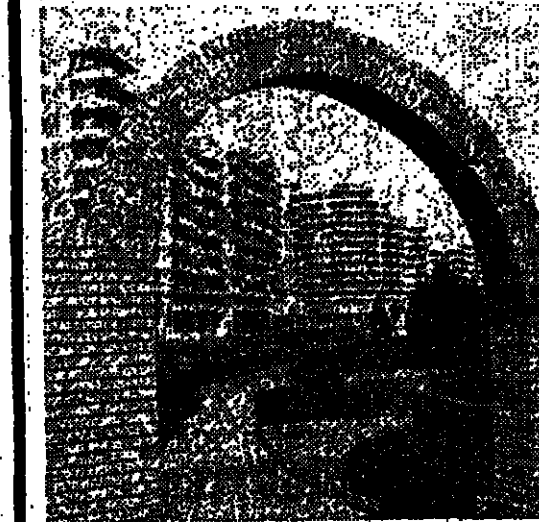
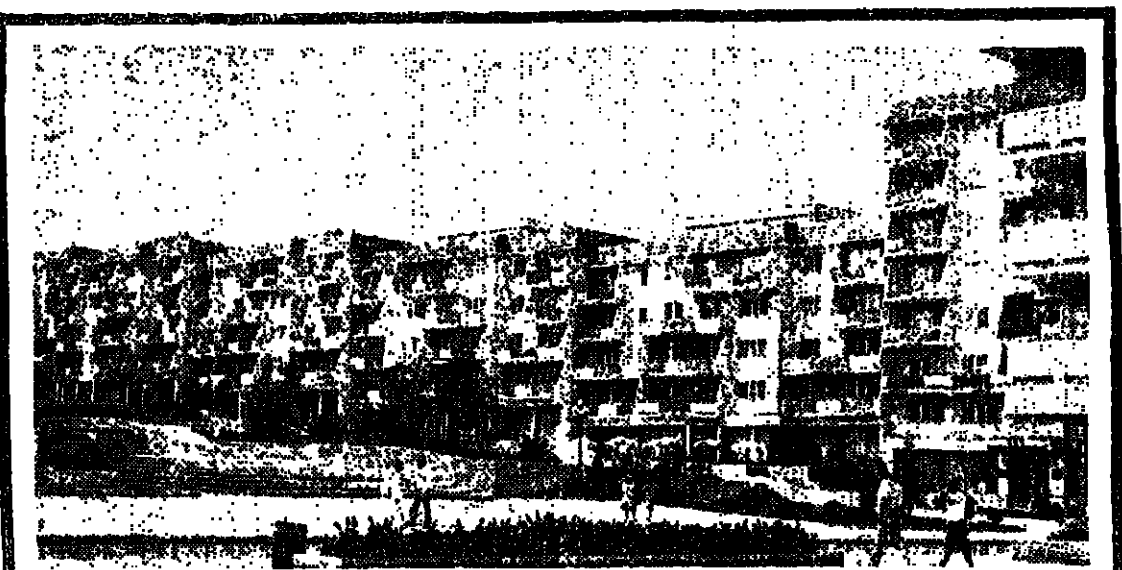
The decisive economic lever in the implementation of the policy of harmonious distribution of the production forces over the territory, systematically applied in Romania especially after the Ninth Congress of the Romanian Communist Party (1965), is the controlled investment effort. During the 1966-1985 period, more than 3,000 billion lei were invested in the national economy. It is significant to mention that from an annual average of 24 billion lei, recorded at the end of the 1950-1965 interval, investment in the national economy increased to an annual average of 150 billion lei in the next two decades, more than 80 per cent of the existing fixed assets having been produced in this interval.

The investments were primarily directed towards the less developed counties: among the 42 counties which registered a development rate higher than the all-country average in the 1966-1985 period, 15 had a lower economic potential. While the investment volume in the industrial sector grew 1.5 times in the national economy as a whole, investments in such counties as Satu Mare, Vaslui, Tulcea, Giurgiu, Dimbovitza, Salaj, Mehedinti, Gorj, Vrancea, Covasna, Bistrita-Nasaud grew between 1.5 and 12 times.

More than half of the total investments went to the industry, whose share differed from one county to another. In the last 23 years, some 180 new industrial areas have been built in Romania, while the existing ones have been developed. In the 1966-1985 interval, the gross industrial output of this country increased 6.3 times, at an average annual rate of 9.5 per cent. The structure of this growth is significant for the policy of balanced development of the economy by territorial units: a number of counties with a lesser industrial potential recorded considerably larger growths: 10-23 times in Argeş, Bistrita-Nasaud, Buzău, Galati, Iasi, Ol. Sălaj, Tulcea, Vaslui counties; 7.5-9.9 times in Rotosani, Calarasi, Covasna, Dimbovitza, Dolj, Gorj, Ialomita, Salaj, Mureş, Teleorman and Vrancea counties. The share of the above mentioned counties in the country's industrial production grew from 30.8 per cent in 1965 to 34.3 per cent in 1985. As concerns the volume of per capita economic activity, the number of counties with achievements up to 80,000 lei decreased from 41 in 1966 to two in 1986, 29 counties surpassing this level at present.

At the same time with the growth of the share of industry in the economy of each county, the structure, as branches, of the industrial output has improved through the priority development of branches and sub-branches inducing technical progress. In 1985, metallurgy, the machine building and chemical industries held a share of over 50 per cent in the industrial production of 18 counties, compared to just five counties in 1965. The share of Argeş, Bistrita-Nasaud, Botosani, Buzău, Covasna, Dimbovitza, Marghita, Ol. and Teleorman counties in the production of the machine building industry grew from 7.5 per cent in 1965 to 17.4 per cent in 1985, while the share of Argeş, Buzău, Dolj, Ialomita, Neamt, Teleorman, Tulcea and Vrancea counties in the chemical industry production reached 31 per cent in 1985 compared to 10.5 per cent in 1965.

This investment policy, sustaining a solid basis of economic growth produced multiple social consequences. Mention should be made, in this respect that over 1965-1985 more than 3.4 million new jobs have been created. The share of the population working in industry and in the other non-agricultural branches has grown from 43.3 per cent in 1965 to 72 per cent at present, while the country's urbanization degree has increased from 53.3 per cent to over 60 per cent.



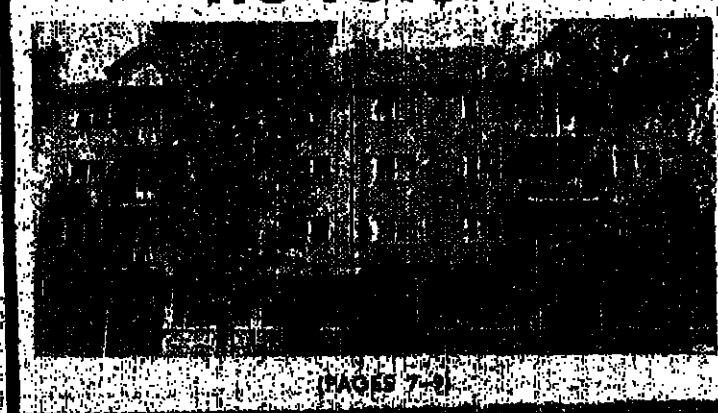
APPEAL

ADDRESSED BY THE PARTICIPANTS IN THE THIRD NATIONAL CONGRESS OF CHEMISTRY IN ROMANIA TO CHEMISTS AND SCIENTISTS ALL OVER THE WORLD (PAGE 2)

THE „GEORGE ENESCU” INTERNATIONAL FESTIVAL MUSICOLOGY AT THE FESTIVAL (PAGE 10)

THE GAMES OF THE 24TH OLYMPIAD (PAGE 12)

CORUND — A COMMUNE IN THE EASTERN TRANSYLVANIAN PLATEAU A VILLAGE PREPARES ITS FUTURE



(PAGES 7-9)

RECEPTIONS BY THE PRESIDENT OF THE REPUBLIC

COSTA RICAN PARLIAMENTARY DELEGATION

Romania's President Nicolae Ceausescu received on Friday, September 23, a parliamentary delegation of the Republic of Costa Rica led by Jose Luis Valenciano, President of the Legislative Assembly.

During the interview willingness was expressed to further develop the good relations between Romania and Costa Rica, the fact being assessed that there were broad possibilities to amplify bilateral collaboration in the political, economic, technical, scientific and cultural spheres, as well as on an international plane, in the fight against terrorism, disarmament and peace. Stress was laid on the major role to be played by parliaments and parliamentarians in the two countries in better mutual knowledge and the consolidation of cooperation between the two peoples.

A number of aspects were also approached related to the current world situation, with emphasis on the importance of the united action of peoples, of the democratic and progressive forces everywhere for the halting of the arms race, the achievement of disarmament, nuclear disarmament above all, for a general, negotiated settlement of the states of tension in various parts of the world. The active role was underscored which small and medium-sized states can and must play in a constructive solution to the complex problems of our days.

Special attention was paid to the necessity of finding a global solution to the questions regarding underdevelopment.

MIKHAIL SOLOMENTSEV,
Member of the Political Bureau of the CC of the CPSU,
Chairman of the Party Control Committee

Nicolae Ceausescu, General Secretary of the RCP, President of Romania, received on September 23, Mikhail Solomentsev, member of the CC of the CPSU, Chairman of the Party Control Committee under the CC of the CPSU.

On the occasion President Nicolae Ceausescu was conveyed a cordial salute from Mikhail Gorbachev, General Secretary of the CC of the CPSU. At the same time, the guest underscored the importance of the organization of activity in industry and agriculture, in the consolidation of revolutionary workers' democracy, the achievements covered by the Romanian people in the country's socio-economic development.

Thanking Nicolae Ceausescu conveyed his warm wishes to the Romanian people and to the Soviet people.

During the interview, emphasis was placed on the relations of friendship and collaboration between the RCP and the CPSU, between Romania and the USSR, between the peoples in the two countries, on the decisive role of summit meetings and talks in the development of those fine relations on multiple planes.

Highlighted were also the possibilities at hand for the further expansion of Romanian-Soviet collaboration in the political, economic, technological, scientific and other fields. It was emphasized that intensifying the contacts and exchanges of experience, in the area of party activity included. It was assessed that the broad promotion of the relations between the two parties and countries was to the benefit of the Romanian and Soviet peoples.

APPEAL

ADDRESSED BY THE PARTICIPANTS IN THE THIRD
NATIONAL CONGRESS OF CHEMISTRY IN ROMANIA
TO CHEMISTS AND SCIENTISTS ALL OVER THE WORLD

The Third National Congress of Chemistry, held in Bucharest over September 21-24, 1988, attended by scientists, researchers, teaching staff in higher educational establishments, experts of chemical works and enterprises — in full unity with the whole Romanian people, reiterate on this occasion as well their complete adherence to the fully humanist home and foreign policy promoted by Romania, to the initiatives and notions of great reverence of the country's president, comrade Nicolae Ceausescu, firmly convinced that the fulfillment of Romania's socio-economic development plans and programmes — very much like those of all countries and peoples — can be ensured only in conditions of peace and security, in a climate of confidence, of broad international collaboration and cooperation.

Giving expression to the will of peace, understanding and collaboration powerfully affirmed during the congress, the scientists in Romania and in the other countries participating in the congress, address a ringing appeal to researchers and scientists all over the world, to concert their efforts, to strengthen still more their collaboration and intensify their actions in the current, very grave and complex international circumstances, so as to make an ever more active contribution, together with their peoples, to the powerful assertion of the policy of peace and understanding among nations, to the cause of progress and civilization, of improved material and spiritual welfare of all nations of the world.

Under the current circumstances, when tremendous arsenals of nuclear and mass destruction weapons have been amassed all over the world, when nuclear tests continue and suchlike weapons are being sophisticated, as well as chemical

and other mass destruction weapons, nothing can be more important than the concerted efforts of all peoples, of the realistically-minded, advanced forces all over the world for the halting of the dangerous course of events towards nuclear and chemical disarmament, nuclear disarmament above all, for the defence of the fundamental right of every people, of every inhabitant of our planet — to life, to free and dignified existence.

This is the supreme imperative of our epoch, in the name of which we scientists, researchers and specialists in the field of chemistry, call on all the servants of science to work tightly united and do everything in order to contribute to the cause of peace and disarmament, utilizing concretely the great gains of chemistry, of science and technology in general, only in the service of a peaceful development of all the nations, of the economic and social progress of human society.

Let us spare no effort in order to help the forces of peace and progress — in whose ranks scientists hold an important place — to have the last word in the progress of the international life, to bar the continuation of the arms race, to ensure the total elimination of the nuclear and chemical weapons from Europe and from the entire planet.

We ardently call on all those working in the field of chemistry to oppose firmly the improvement and production of chemical weapons, not to allow the use of the great achievements of science for the creation of new mass-destruction means. We all share a great responsibility in making sure that chemistry is put only to peaceful uses, that the results of our research in this field are used exclusively for the benefit of what is good and for the prosperity of all peoples.

Today, chemistry has the capacity to participate, by the side of the other sciences, in the higher capitalization of natural resources, in enhancing land fertility, in ensuring people's health, as well as new materials needed by the other domains of technological progress. We must strengthen our collaboration in this domain and in all scientific domains and make the huge potential of science and technology serve the economic and social development of the nations, find solution to the grave questions of underdevelopment and eradicate the great economic gaps between states, preserve and help the progress of all mankind.

In the light of the principle guiding consistently Romania's foreign-policy actions and initiatives, the Romanian researchers and scientists reiterate their resolve to collaborate more and more tightly with scientists everywhere for the progress and thriving of science and for enhancing its role in the peaceful economic and social life, at the same time, for the promotion of a new, democratic policy, for the triumph of reason, of peace and collaboration among all the nations in the world.

Nowadays science and peace are inseparable. Let us make these fundamental values of our epoch inspire us permanently in the struggle for a humanist life in which all peoples, working in full security and peace, may enhance increasingly their contribution to the progress and progress of mankind in the world of work in such a way that, through the joint efforts of the peoples, the policy of disarmament, security and collaboration, peace — the most valuable asset of mankind — may triumph.

ON OCTOBER 12 THE 14TH EDITION OF THE BUCHAREST INTERNATIONAL FAIR OPENS ITS GATES TRADE — COOPERATION — DEVELOPMENT — PEACE

This year Romania has been present — with official pavilions and stands displaying various industrial products — in scores of international fairs and exhibitions, held in 35 many cities and economic centres of Europe, Asia, Africa and the two Americas. At the same time, this summer the Soviet Union's capital hosted the Romanian '88 national exhibition and trade confrontations the part of these economic and trade confrontations the Romanian enterprises of foreign trade exhibited a wide range of products belonging to all the economic branches, most of them new or updated.

At the same time Romania is itself the host of a prestigious world event — THE BUCHAREST INTERNATIONAL FAIR — now at its 14th edition. Scheduled between October 12-25, the fair (TIB) will unfold under the catchphrase "Trade — Cooperation — Development — Peace", illustrating Romania's wish to expand and deepen its economic trade and cooperation relations with all sides of the world, regardless of socio-political system, in a climate of peace and understanding, benefiting all sides.

The continuous development and modernization of Romanian economy, especially of industry, whose productive potential over the first two years of the ongoing five-year plan period (1986-1990) has been almost two times larger than that scored throughout the 1950-1985 interval, have brought about significant qualitative changes in Romania's participation in the world market of material goods. For instance, in 1987 Romania promoted economic relations with 118 states and the volume of its foreign trade rose to 20.7 billion lei. At the same time, the structure of Romanian exports has acquired new features, in the sense that the share of highly processed goods (machine-tools, transport means, chemical and petrochemical products, industrial consumer goods) has continuously increased, now accounting for over 63 per cent of the overall export volume.

It is along these coordinates that the 1988 edition of TIB will also unfold, helping foreign businessmen and specialists get a better idea of Romania's present productive and export potential. These are reasons prompting foreign exhibitors to come to the Bucharest International event in increasingly larger numbers. TIB '88 entered by hundreds of manufacturing and exporting firms of Romania and other 38 countries of Europe, Asia, Africa, North America, South America and Australia. A number of 38 states will present their commercial offer as part of national pavilions. They are: Albania, Australia, Austria, Belgium, Bulgaria, Canada, Chile, China, Czechoslovakia, Egypt, Hungary, the GDR, India, Iraq, Israel, Italy, Japan, Libya, Norway, Pakistan, Poland, Spain, Sweden, Tunisia, Turkey, the USSR, the USSR and Zaire. At the same time standing out is the participation of private firms of Cyprus, Denmark, Great Britain, Greece, Liechtenstein, the Netherlands, Portugal and Switzerland. Many of them are traditional attenders of TIB, while others will come here for the first time, proving the increasingly high prestige enjoyed by the exhibition of Bucharest among specialists and business men all over the world.

Not thousands of business circles from many countries are expected to arrive at the fair. As far as the host country is concerned, the same is before. It will be the main exhibitor. Hundreds of industrial, central and economic enterprises, research and design institutes, foreign trade bodies will display a rich offer selected from among the output of all economic branches. A large part of the Romanian exhibits are novelties, or highly improved products such as RTZ 20 P-150 crushing machines, looms and processing centres, CREG-ONG tubes with two major axes with microcomputer for heavy environmental equipment for a wide range in foundries, industrial coils and robotized manufacturing cells, the CORAL



SAADI 1000 instrumental engineering control robot, copying systems in two or three SCD coordinates, electronic measuring and control instruments, a.s.o.

Known in the world as a big producer and exporter of drilling, extraction and research installations and equipment, Romania has developed this sub-branch by adopting the latest technical solutions, by redesigning products. At this edition of TIB, the palette of products in this field includes drilling installations, eruption, prevention, extraction installations, etc.

In the transportation sector, the attention of specialists and businessmen will focus on the following range of exhibits: trucks and tip lorries of various capacities, special motor vehicles, Dacia and Dacia cars, in various constructive variants, ARO all-terrain cars, as well as helicopters, gliders, motor gliders, planes, locomotives and railway cars (for passengers and

goods). The chemical and petrochemical industries will be also richly represented, exhibiting small tonnage and fine synthetic products, polyisoprene rubber, chemical fibres and yarn, drugs, cosmetics, fertilizers, dyestuffs, etc.

In order to favour the exchange of ideas and information and stimulate direct contacts between specialists and businessmen of various countries, a series of events will be organized during TIB '88 among which technical conferences, symposia, press conferences, films, etc.

Also, in order to distinguish the presence of Romanian and foreign exhibitors at TIB '88, participation diplomas and medals will be granted to representatives of foreign trade companies and foreign firms.

It can be appreciated that the favourable auspices under which commercial activity will be carried out at this Bucharest event, attested by the prestigious participation of countries and industrial firms by the exhibitors, will ensure a good future to the transfer of ideas and experience among specialists, as well as fruitful contacts among businessmen present in Romania's Capital, which contributes to the extension and deepening of bi- and multilateral economic collaboration.

Also richly represented will be other branches of the national economy. The metallurgical industry for instance, which has developed considerably, will put on display thousands of types of steels, rolled sheet, wire, aluminium and processed aluminium. The wood working industry too will exhibit the most valuable and recent creations in the fields of modern and period

INTERNATIONAL CHEMISTRY SALON

Just as at the previous editions, this year's TIB will include an International Chemistry Salon, which is aimed at displaying the production and export potential boasted in this field by Romania and other exhibiting countries.

Today, Romanian chemistry and petrochemistry provide the image of a branch in full swing of modernization and diversification, with a spectacular dynamics recording a nine-time growth in 1987 over 1985, and an average annual growth rate of 10.5 per cent, higher than the rate registered by industry as a whole. Over this interval, over 1,250 chemical and petrochemical units were commissioned, the branch's share in the overall industrial production on current prices standing at 13.5 per cent. Moreover, this branch accounts for about 22 per cent of the country's exports. Today, there is a chemical or petrochemical unit in each of the country's counties and in Bucharest municipality.

In the ongoing five-year plan period (1986-1990), the chemical and petrochemical industry will increase its production 1.5 times, and its exports 1.7 times, as against the previous quinquennium (1981-1985). The Romanian chemical and petrochemical products are well known and in high demand in over 100 countries on all continents.

At the 1988 International Chemistry Salon, the Danubiana and Chimica foreign trade companies will put on view a rich offer of products from all branches: chemical fertilizers, synthetic yarns and fibres, detergents, dyestuffs, lacquers, medical drugs, plastics and synthetic resins, tyres and rubber technical items, soiled products, various other products of the organic and inorganic chemistry and of petrochemistry, such as polystyrene, copolymers, polyethylene, carbon black, photosensitive products, etc.

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Pages by
T. NITESCU
AL. MARINESCU

ROMANIA IN THE WORLD • ROMANIA IN THE WORLD TURNKEY FACTORIES

The recently commissioned, "Asiad II" cement factory represents the largest project achieved in cooperation by Romania and Egypt, being at the same time, one of the most important units of the kind in the Egyptian economy.

The factory is provided with two complete technological lines, each with a capacity of 2,000 tons clinker daily, the Romanian side ensuring the technological equipment and installations as well as the metal constructions. Details concerning the construction proper of the factory, its mounting, commissioning, the execution of afferent civil constructions were included in a cooperation contract signed by Romanian and Egyptian partners.

Romania's cooperation with other countries in the building material industry, especially the cement one, ended with concrete results. In two decades of activity, Romania delivered, through the specialized foreign trade company Uzineexportimport, 24 cement factories, totaling 48 technological fabrication lines (with capacities varying between 800 and 4,000 tons clinker daily).

It follows that more than one cement factory was exported yearly on the average, a remarkable feat if we take into account the fact that the building of such a factory lasts three years. This reflects the high technical and industrial potential of Romania in this field, as well as the successful results of its economic and technical cooperation with the countries of the Arab world, the People's Republic of China, the USSR, Yugoslavia, Vietnam, the Yemen Arab Republic, the People's Democratic Republic of Yemen and Zambia.

and plant, measuring and control instruments, and automation systems.

The cement factories delivered abroad are equipped in accordance with the most advanced technology worldwide, ensuring both the complete utilization of the raw materials and the higher quality of products, and the substantial reduction of

the specific consumptions of materials, fuel and energy, as well as of the expenses necessary for the respective investment. The factories built and delivered by Romania include those in Pakistan, Yugoslavia, Syria, Hungary, Iraq, People's China, Egypt and the United Arab Emirates.

T. PRESCARU ■

A PRESTIGIOUS PARTNER: "ROMPETROL-GEOMIN"

In the activity of international economic cooperation consistently promoted by Romania, Rompetrol-Geomin enterprises of economic cooperation with foreign countries have been well known and appreciated for several years, in over 70 countries all over the world. The Romanian firm, specializing in geological researches and geophysical prospecting in order to identify crude oil and gas deposits, in drilling operations, building pipes, structures, for liquefied petroleum gas and oil production, and mining units, including for the treatment and beneficiation of ores, meant to ensure the necessary technical assistance, a series of technical-engineering services (engineering, consulting, know-how, training the specialized personnel, etc.), has lately achieved a series of projects highly appreciated by partner abroad.

Among the most important units, turn-key ones included, already completed or under construction, worth-mentioning is the construction of main pipelines for carrying oil and gas, ethylene and propylene, storerooms for oil and oil products, deposits of various capacities for the mining industry and for the treatment of many countries such as: Afghanistan, Albania, Algeria, Angola, Benin, Burma, Bulgaria, Canada, Czechoslovakia, People's China, the DPR of Korea, Colombia, Congo, Cote d'Ivoire, Cuba, Ecuador, Egypt, Ethiopia, Gabon, the GDR, Greece, India, Indonesia, Jordan, Laos, Lebanon, Liberia, Libya, Mali, Morocco, Mongolia, Mozambique, Nepal, Nigeria, Pakistan, Peru, the Philippines, Romania, Sudan, Syria, Tanzania, Tunisia, Turkey, the USSR, Venezuela, Vietnam, the Yemen Arab Republic, the People's Democratic Republic of Yemen and Zambia.



FROM ONE EDITION TO ANOTHER

The first edition of Bucharest International Fair took place in 1970 (October 1-24). Attending were hundreds of producing and exporting firms of 30 countries.

More than 13,000 firms from 106 countries from Europe, Asia, Africa, North and South America, and Australia participated in the 14th edition of the Bucharest International Fair.

The exhibition complex in Romania's Capital — the host of all 14th editions — offers a wide range of exhibits and better participation conditions. For example, the present exhibition area reserved for this event is over three times larger than the existing one from the edition of 1970.

Mention should be made that countries like the USSR, GDR, West Germany, Bulgaria, Austria, Czechoslovakia, Poland and Hungary, which are in fact some of Romania's most important trade partners, were present at all 14 editions of the Bucharest International Fair.

THE GIANTS' WORLD

Inside a hole which seems to have been made by a falling meteorite, with a diameter of one kilometer and a depth of a few scores of metres works a complicated metallic construction, a somewhat vague replica of a gigantic crane. A 150-m-long and 40-m-high mechanical mastodon solidly relies on huge caterpillars. It is a 1,400-t-heavy rotor excavator enjoying its job at the Tismana II open-cut of the Rovinari Mining Enterprise based in the coalfield of Gorj. The Tismana II sector has two gigantic excavators: one of 1,400 t (driven by Constantin Căldăraru) and the other of 1,300 t (driven by Gheorghe Bobel). In his area there is also the longest conveyor belt of the enterprise — over six kilometres — which reaches even the Tismana I open-cut.

this week's reportage

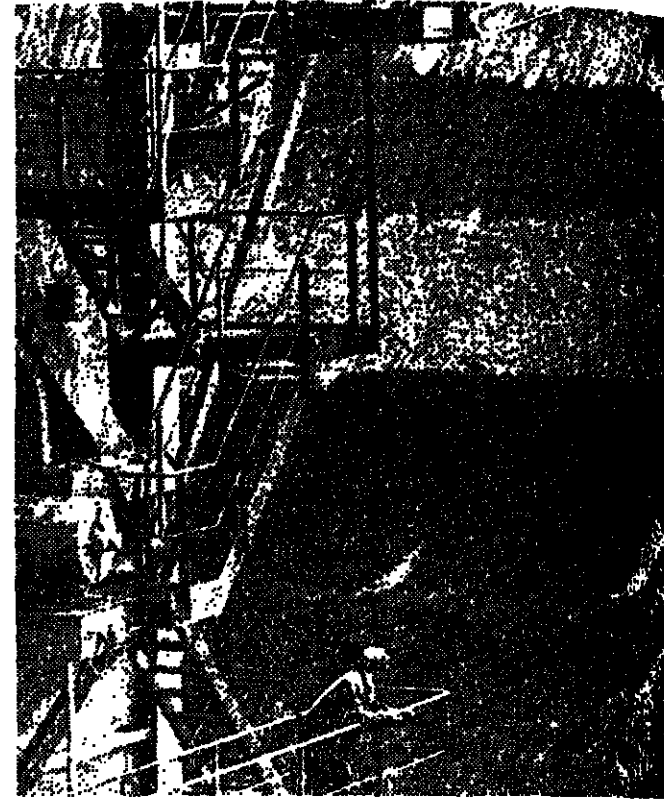
Piloted from the control cage by a chief-mechanic and guided from the front for safety by another supervising highwall worker whenever the angle of visibility decreases, the 34-m-long excavating arm rises and lowers, oscillates horizontally, advances, withdraws, with slow but steady moves, quite flexible in spite of its gigantic size, placing the excavating device — the bucket wheel — depending on the structure of the deposit.

a confrontation with the unknown. Besides its own risks, new and difficult questions which can hardly be coped with by routine operations.

The earth is full of surprises at every step. You cannot simply foresee what is inside. Anytime you may find yourself under the excavator's "sniffer" with an alien piece of material that can cause a lot of damage. Landslides can overturn the excavator. Strong ground water jets may gush out. One second of absent-mindedness and the rotor may get stuck and the rubber band come to shreds. One second costs 100,000 lei. The team of the excavator, made up of two mechanics, an electrician, a locksmith and two supervisors are permanently on the watch.

Open-cut mining becomes even more difficult under the endless spring and autumn rainfalls and the winter frost. At very low temperatures the machines can collapse and the rubber conveyor can break into pieces.

The extraction of lignite is an open-cut is a heroic confrontation with nature, leading to extraordinary performances. Records are something quite usual in the open-cuts of Gorj. However, they are possible only through a perfect organization of work and technological dis-



SKILLED HANDS

stocked long before winter by removing the earth layer hiding the coal deposit. In winter, the

clay which covers lignite gets glued to the equipment and sticks in the conveyor belts.

Bucket-wheel excavators and the other machine-tools used in the open-cut are highly complex, exacting and... costly. (An excavator is worth a few hundred million lei). Their handling, repairing and maintaining demands high professional training the expert hands.

The mechanics operating the gigantic excavators possess solid knowledge of technology, mechanics, electronics, physics, hydraulics and even geology. In fact the open-cut miners are mechanics, electricians, dry heal curers and locksmiths. Many of them specialize in two jobs.

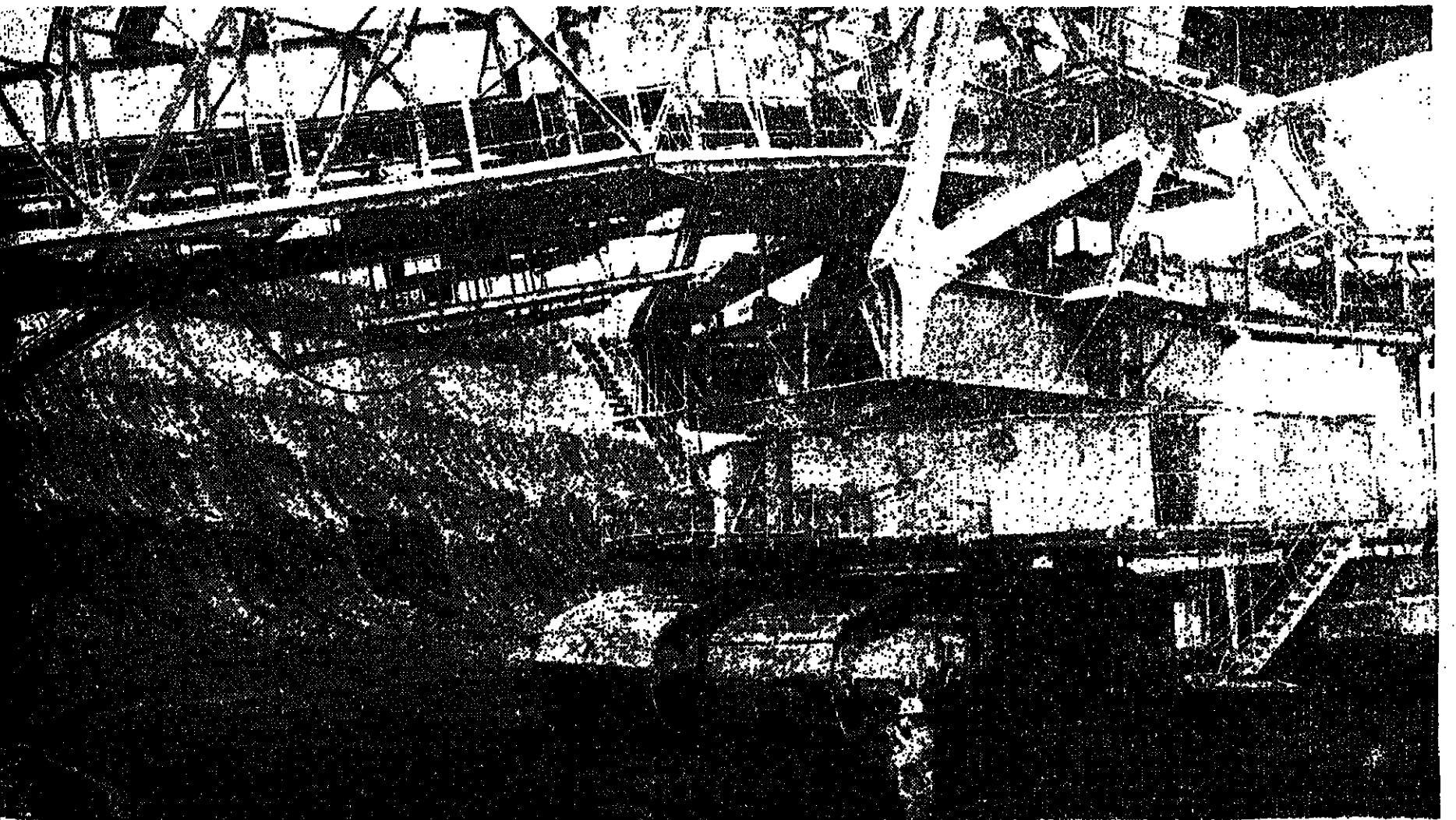
The miner proper, the classic type who makes his way into the coal layer with his arms and an archaic tool does no longer exist. Rovinari has highly trained workers who improve their knowledge and skills permanently. The level of exigency is continuously higher.

Of the 70 gigantic bucket-wheel excavators which work

presently in Romania, 20 belong to Rovinari the enterprise of which boasts the richest experience in their exploitation. A few years ago the Rovinari specialists launched the idea of a national championship of bucket-wheel excavators. Six of Rovinari's excavators hold the first six places in the competition.

The factors ensuring their priority include a better efficiency in using excavators, a larger capacity distributed on working hours and, naturally, an impressive volume of mining mass and coal excavated. The names of the champions are: Constantin Căldăraru, Gheorghe Bobel, Alexandru Miron, Gheorghe Arănoiu, Gheorghe Lăzărescu, Grigore Coian, chief mechanics and team leaders working on the gigantic excavators of the Rovinari-based mining enterprise. They are called "the Rovinari millionaires. With their machines and their teams of skilled men they

A new town — Moiră — has appeared and is growing nearby the large opencuts. It is a town providing miners with all modern comforts and facilities.



A ROOFLESS PLANT

The buckets cut and pull out continuously large pieces of coal from the shining black layer. Tons after tons of lignite are taken over by the conveyor belt of the excavator and then carried off along several kilo-

metres in an endless march, along the conveyor highway crossing boundless fields, heading for the deposits of the thermo-power plant at Rovinari.

Every bite of the excavator's buckets into the coal layer is

ROVINARI

The mining enterprise of Rovinari, sited in the heart of Gorj county, south-west of the Rovinari industrial-agrarian centre, is the largest of its kind in Romania. It stretches over 35 sq.km, accounting for four open-cuts — two to the west and two to the east of Jiu river: Tismana I, Gîrla, Tismana II and Rovinari-Est. It ensures 22 per cent of the national output of coal and approximately 50 per cent of the whole production of the mining works of Rovinari and at the same time it is one of the main lignite suppliers of the great thermo-power plants in the area: Rovinari and Turceni.

The mining enterprise of Rovinari is the oldest open-cut unit. It was set up in March 1950. In 1957 the first imported excavator started to work at the Cămin open-cut (now closed), thus marking the beginning of the exploitation of coal with large-capacity complex equipment. Since then the enterprise has assimilated all mining equipment parts for open-cut mining.

Presently, the enterprise has modern technical means worth over six million lei covering 20 bucket-wheel excavators and 100 km of conveyor belts. The working personnel amounts for 3,500 people.



Even if the equipment and men scattered over several square kilometres are not sheltered by an industrial hall and all round them there is nothing but earth, coal and the sky, a coalfield is still a plant. A plant without a roof operating irreproachably in spite of bad weather, either in the heat of summer or in the icy frost of winter.

The excavator — the heart of the open cut — pulsates fuel incessantly through its vital veins — the conveyor belts — to thermo-power plants. Work goes on round the clock in three shifts. Even at -15°C.

Special electric and technical assistance emergency units are constantly on the alert. A radio call and they move in. Worn-out or damaged parts are promptly replaced. Operative technical solutions are adopted on the spot. In order to keep the plant working at full capacity without interruption. Volcanization actions equipped with long rubber belts in a record time, even in apparently impossible conditions — under rain, snow or frost.

Almost all the machine-tools have been imported, under going important technological changes to raise their working capacity and narrow damage areas when they have to be stopped.

Exploitation reserves are

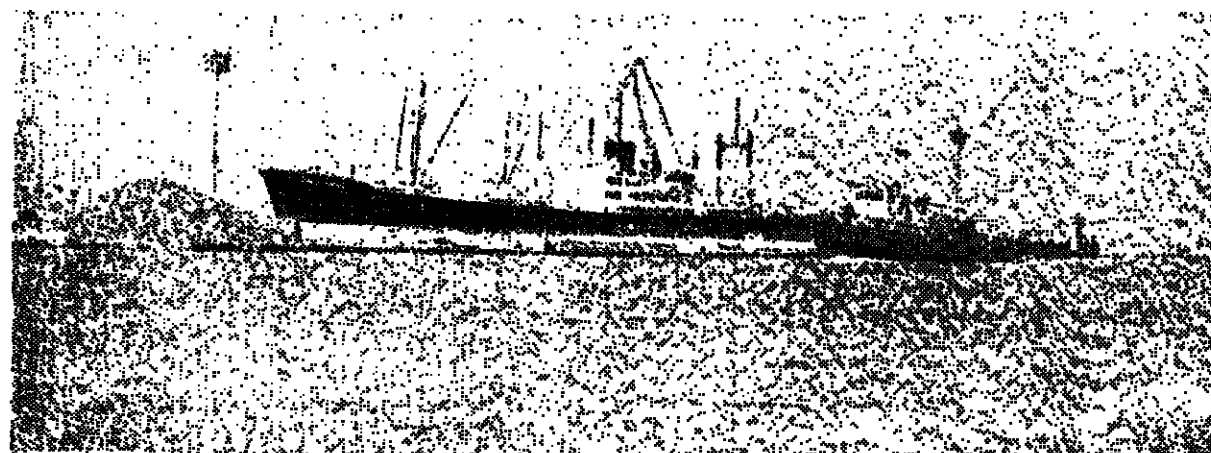
have extracted millions of tons of coal along the years. They are elite workers of the enterprise. Director Nicolae Bercea calls them the "men of the future". Their results, higher efficiency and record outputs will have to become the average output of each and every machine tool in a few years. They prove that modern technology offers many possibilities which should be discovered and exploited.

Pages written by
MIRCEA ROSCA
Photo by M. ALEXE,
L. TUDOSE,
B. DIONISIANU

A series of new, efficient solutions have been introduced in the units of the Moiră mining works.

The experts piloted face supporters for the supporting, cutting and spanning of the roof. The latter will operate on a horizontal plane as a horizontal mobile mechanism and aggregate for the exploitation of this bed. The open-cut of Jiu changed the technological flows of a large capacity excavator and of conveyor belt circuits.





ULTRASOUNDS AND DEPTH

While sailing, river- and seagoing ships may sometimes meet with a number of physical conditions that affect their piloting to a certain extent. The shallowness of some waters, the irregular bottoms of some river beds, and areas or harbours are only a few of these obstacles. How can the navigating staff detect and avoid them?

A technical solution has been offered by the experts at the Bucharest Institute of Transport Research and Technological Design. They have designed and produced the ADA-80 complex equipment — an ultrasonic sounder for sea- and river-going ships. It helps measure the depths of inland wa-

ters and shallow seas, the merited values being recorded and digitally displayed on electro-sensitive paper. When depth precludes normal traffic, according to the ship's tonnage and type, the apparatus signals the respective discrepancy through a warning system.

By using the ADA-80 sonar, a reliable, small-size, lightweight apparatus, one can obtain true topographic maps of certain underwater routes, which, among other things, increases the safety of navigation on rivers and seas for ships of various types and tonnages. (Top and right photos).

AUTOMATED DISPATCHER

Romanian computer technology is ever faster penetrating into the railway sector. An eloquent example to this effect is the dispatch equipment meant for controlling train traffic. It was especially conceived for an extremely busy railway traffic region, the mainline 800 which links Bucharest to Constanta.

The dispatcher devised by a group of researchers at the railway automation department of the INCETRANS Institute, led by engineer

Gheorghe Barbu, was used in Felești.

Contributing equipment to this automated complex were the Computer Factory, the Factory of Automated Elements, the Factory of Peripheral Elements in Bucharest, the Enterprise of Industrial Electronics and Automation in Cluj-Napoca and the Industrial Production Department in Craiova.

The suppliers of artificial intelligence are the specialists of the Bucharest Institute of Transport Research

and Technological Design. This automated centre was provided with numerous facilities: the unitary coverage, based on various programmes, of traffic throughout the 230 km mainline; the automatic processing of numerous routine elements by the computer; the latter's regulation of possible traffic disruptions, processes which it solves in an optimum time. The programmes written for this automated dispatcher make possible automatic decision-making. In the near future this modern system will enable one to control traffic and the operation of signals and points simultaneously, with considerable effects as concerns traffic capacity and speed.

M. CONSTANTINESCU ■

A SWEET FACTORY

A new sugar factory was put into operation in Lechinia commune (Bistrița-Năsăud county). As Vasile Moldovan, the unit's director told us, there are several economic reasons at the base of locating the factory in this commune: the sugar factory, with a processing capacity of 1,000 tons sugar beet daily, was built at the centre of an area where large quantities of sugar beet are cultivated. Secondly, by-products are used as animal fodder, Lechinia having a zootechnical sector with over 1,000 cattle.

The new sugar factory is built and equipped with Romanian installations manufactured by specialized enterprises in Sibiu, Ploesti, Buzău and Bucharest.

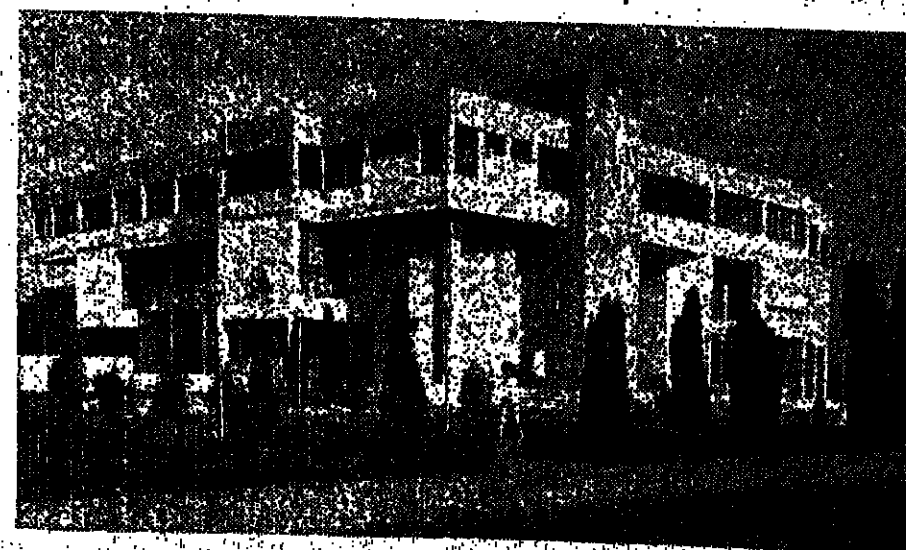
A. SCHUCHNER ■

TECHNOSCIENTIFIC CIRCLES

At the Youth's Centre of Culture and Creation in Drobeta-Turnu Severin, Mehedinți county (photo right), the technoscientific circles have also resumed their activity.

Young people in the town's enterprises and institutions thus have the opportunity to develop their hobbies such as electronics, ecology, filmmaking or photography.

Let us also add that, at the request of the young inventors, a library of patents has been set up within the same establishment.



INFOTEC '88

The seventh national conference on Computer Technology has come to an end. This is the most important annual event in the area of information and computer technology in Romania.

The debates brought together a few hundred specialists working in design and industrial units in the field, and offered a representative picture of the development level of these high technologies, of the existing scientific and technical creative potential and the ever more valuable possibilities of in-

ternational collaboration in computer technology. Information and Computer Technology is the main theme of the Strategy of Economic Development, sponsored by the Institute of Scientific Research in Technological Engineering for Computer Technology and Information, which, four hundred papers and posters as part of 24 thematic sections. An analysis was made of the impact of the latest data processing technologies on the most varied fields of activity. Also at this occasion an exhibition of electronic computing equipment and the exhibition of the National Software Library were opened.

A NEW LINE OF LATHES

The Mechanical Enterprise of Roman started to manufacture a new family of numerically controlled lathes. Unlike the previous models it performs, besides the usual turning, operations of cutting, boring and polishing. The new line of lathes is equipped with a large capacity tool storage room, a device for the slow rotation of the faceplate, for separating and blocking the lathe in various angles with an accuracy of five seconds. Angle cutting tools, special sets of instruments for a wide range of technological operations.

EDUCATION — RELATED RESEARCHES

Over September 1988 — July 1989, the Central Pedagogic Library in Bucharest has undertaken to organize at its headquarters exhibitions, debates and round tables on "Education- and Instruction-Related Researches" accompanied by theme exhibitions of Romanian and foreign books.

To be approached monthly are such themes: guidelines in improving primary and high-school education; researches in teaching, priorities and prospects in Romanian education; new technologies and their impact on school epistemology questions.



EMINESCU IN SCHOOLS

The Society of Philological Sciences in Romania has organized a special course devoted to the great national poet Mihai Eminescu from whom we shall mark 100 years in 1989.

Romanian language and literature teachers from the country attended seminars headed by university lecturers from the best towns as well as from abroad and Timisoara. Also, the attendees listened to lectures dealing with various aspects of Eminescu's work, and European horizons; Eminescu's universal poet; Eminescu in the contemporary world; Eminescu's significance and his work's correlation with the modern world; the poet's work in secondary and high schools.

The programme was rounded off with visits to places related to Mihai Eminescu's work: the Central University Library in Bucharest, the poet's birthplace, and the place of his death.

CORUND — A COMMUNE IN THE EASTERN TRANSYLVANIAN PLATEAU



A VILLAGE PREPARES ITS FUTURE

The soil encircling the villages is restless, with fast slopes, like a ski run. In fact, out of 11,000 ha covered by the commune, only 2,000 ha — less than a fifth — accounts for arable land. As for the rest — pastures, hayfields and forests. Annual breeding holds the largest share of the farm production both in private farmsteads and in the cooperative farm. People grow cattle, pigs and sheep.

There was a time when the main concern of this as well as of other villages was depopulation, a massive migration to the city. (The question had been raised even earlier by studies made before the war by a Bucharest-based school of sociology). In the 1960s the number of inhabitants had dropped quite alarmingly, and the birth rate fell, too, dizzily.

Only two decades have passed since then and the economic and social life of the village has regained its vigour. The explanation is quite natural. More babies are born because the village has more young married couples and because the economic power of the village has changed for the better. A recent study made by a multidisciplinary team of the county people's council shows that the labour force employed in agriculture rises to 1,031 people, 492 of whom work with

values, considering them a necessity in the people's daily life. Obviously, it is also a matter of living standards.

The people of Corund, traditional preservers of the craft of shaping clay vessels, have gradually adapted themselves to modern technologies. The foot-driven wheel was replaced by a mechanical one, the breaking and tempering of clay is done with the help of an electric motor, a gas injection device was attached to the old oven... The art of drawing perfectly harmonized ornaments with distinction and sobriety has remained a secret able to be deciphered only by man's hands.

Today Corund has more than 700 potters. Some of them work in their own shops, while others at a village cooperative unit. There is even a small factory,



- 1 Located on a restless plateau, the village of Corund has expanded in all directions along the river valleys. However, of late people have built their houses along the national highway which has become a real axis of the commune.
- 2 The dispensary — one of the latest constructions of the village. Placed in the centre of a large park, the building houses not only treatment and consulting rooms, but also dwellings for the families of two of the village's doctors: Doctor Fecso, Hegri's husband, an engineer in a large plant of Odorhei, would rather use the commune train and live here, in Corund, than move to Iași.
- 3 The bread for all the inhabitants of the village is prepared by the bakery of the cooperative farm. An always neat and beautifully baked loaf of bread.
- 4 Death: Pál, Angeli's husband, an engineer in a large plant of Odorhei, would rather use the commune train and live here, in Corund, than move to Iași.

the cooperative firm, Non-agricultural professions are carried out by 1,034 people, of whom only 220 use the village services to reach the large industrial units of Odorhei town.

Quite remarkable in the history of an ancient occupation over the last two decades is pottery. The art of potters, the beauty and originality of decorated vessels had long won the village a well-deserved fame. But their craft seemed to be simply a rival of the industrial production of ceramics. Its revival was achieved in 1978 by three kindergarten, a school, hotel with 100 beds, a department store, a post office etc. Twenty years ago there were less than a dozen of these buildings.

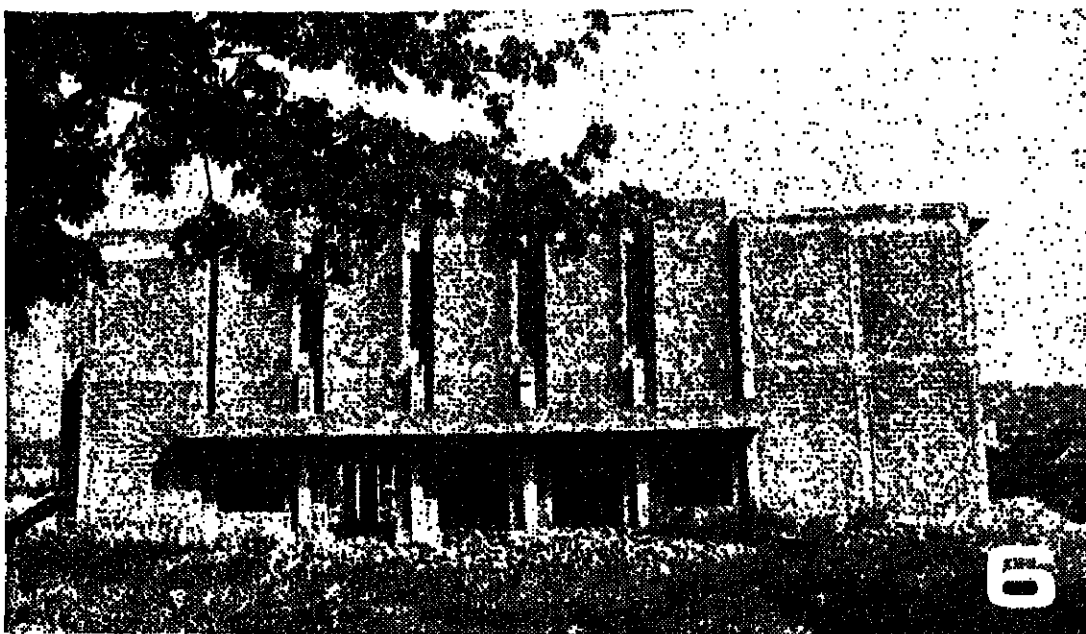
Actually a section of the Odorhei enterprise which turns out ceramic objects.

However, let us not confine the commune of Corund to the potters' workshops. From the same study we mention the village's social establishments: a club, with a room seating 400, a dispensary with two physicians, a signaller and a one-stall shop, a drug store, school of eight and ten grades with Hungarian and Romanian as teaching languages (the former was founded in 1918), three kindergartens, a school, hotel with 100 beds, a department store, a post office etc. Twenty years ago there were less than a dozen of these buildings.

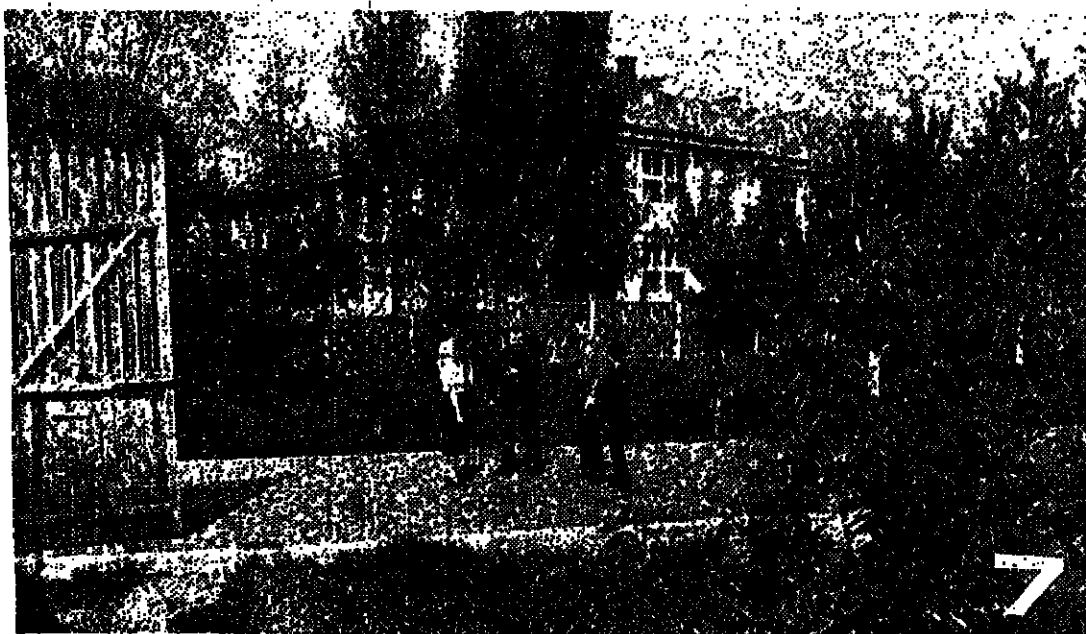
(cont. on p. 8)



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6



7

(cont. from p. 7)

ings housing today these institutions.

In the majority's meeting room there is the locality's scale model, which has the ambition of giving shape not only to the commune's present but also future aspect, on realistic even scientific bases. Because Corund commune, even though it does not intend to surpass its rural condition and does not aspire after becoming a town, it is nevertheless in an accelerated modernization process. A process which can be seen by whoever comes here. You do not need the explanations of a guide to understand the changes that have taken place in the people's lives, in their way of living, thinking, working.

The houses are the first and most eloquent evidence of the progress made by the village's people toward the superior standards of modern life. Hundreds and hundreds of new houses. A single block of flats was built three years ago. Another one of 18 apartments will be raised next year. The rest are houses with ground and upper floor. Big, solid houses with many rooms, designed according to modern aesthetic and functional criteria. Expensive houses that cost a lot and are the indicator of the inhabitants' living standard. Houses also show that it wasn't always the same. Here and there you can see an old, simple house made of wood. And I do not refer to houses belonging to poorer people but those of people like the former miller, one of the wealthy people. His house and the mill, are modest, small, compared to houses built by the neighbours lately. Gyorgy Imre for example, a technician at the consumer cooperative is not yet 30 years old, has two children and raised a house with eleven rooms on two floors. Mary Tereza and his wife Magdalena also have a new house with ground and upper floor. Both houses are not the biggest in the village. Because, here are big families, where parents and children or several brothers built a single house, as large as a school.

In fact, the same multidimensional study on the commune's social, economic and cultural life, quoted by the inhabitants' existence. In Corund, of a living area of 1,781 sq. m. for 1,781 families. Considered from

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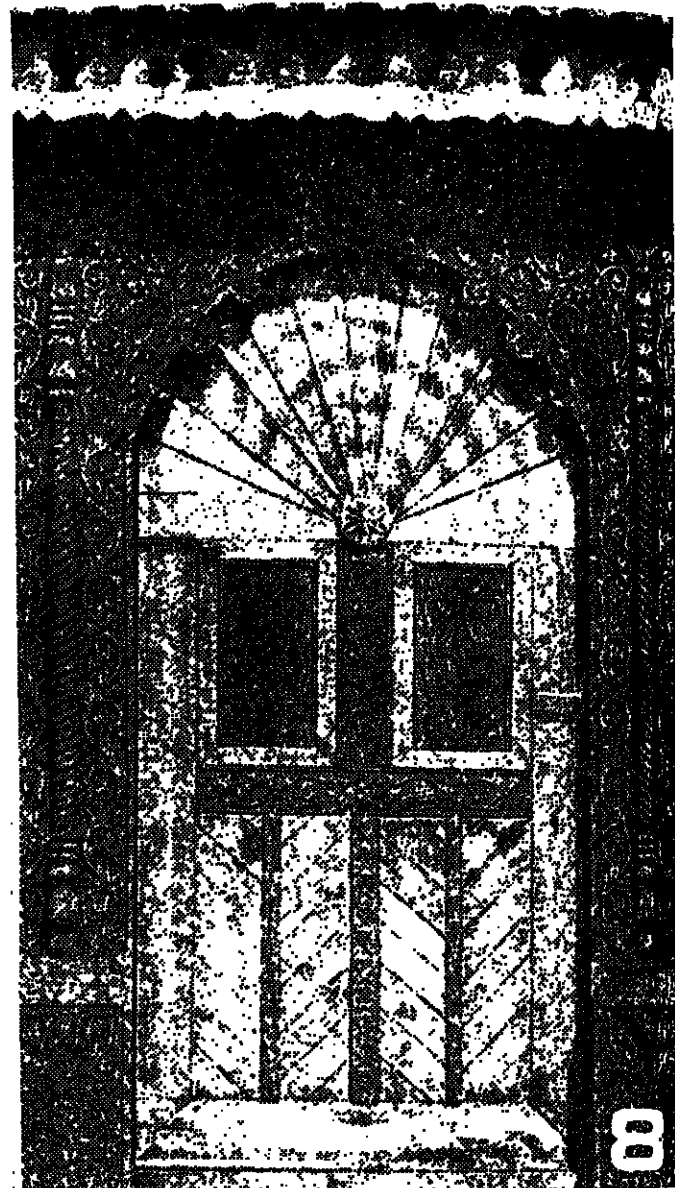
In fact, the same multidimensional study on the commune's social, economic and cultural life, quoted by the inhabitants' existence. In Corund, of a living area of 1,781 sq. m. for 1,781 families. Considered from

5 In the village there is only one construction of the "block of flats" type, with 12 apartments. It was raised especially for the experts working in Corund.

6 Corund village has a house of culture built in the 1930s. Now a new, larger building is in the works.

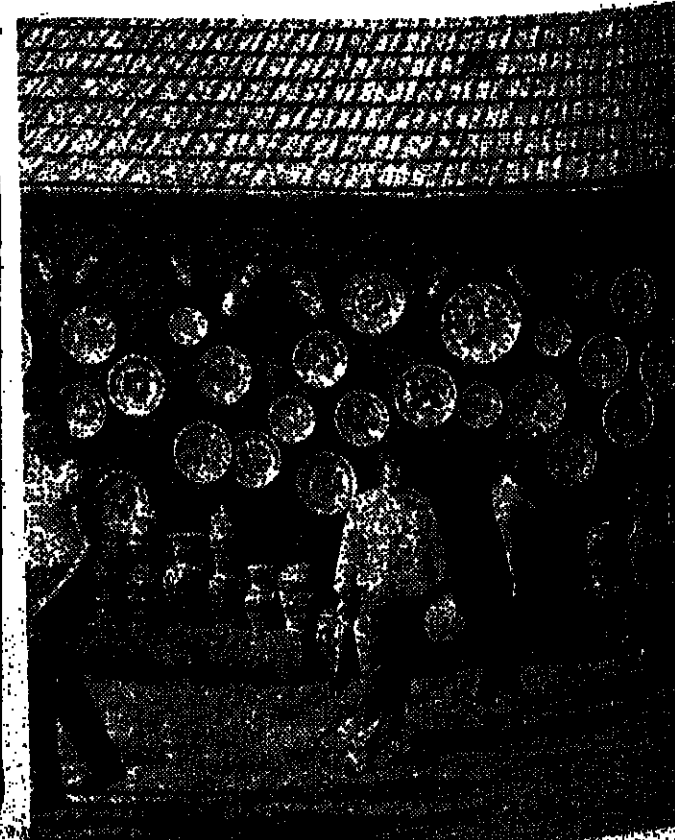
7 The ten-grade school is the oldest and, at the same time newest one in Corund. It dates back to 1723 but the present establishment was opened in 1971. Pupils may study here either in Romanian or in Magyar.

8 The gates of Corund's houses are usually made of sculptured wood. A characteristic of a vast geographical area, wooden gates are very frequent in Romania.



8

CORUND A COMMUNE IN THE EASTERN TRANSYLVANIAN PLATEAU A VILLAGE PREPARES ITS FUTURE



8

house in Corund. One of many two-story buildings. A house provided with all modern facilities. The revival of an ancient pottery — but mainly the strong modernized by the village's social and economic development in the last two decades. The main village in the 1960s was depopulated by the inhabitants' migration to cities. The population has grown again.

The houses of people of Corund are an proof of the living standard of the live in this village. Big two-story, many rooms for powerful families, and aesthetic, these houses offer the and for by any town inhabitant.

family. Here where they were born, they live well, they have built a new house designed not only for today's but also for the future ones. A beautiful sign of respect for tradition.



9



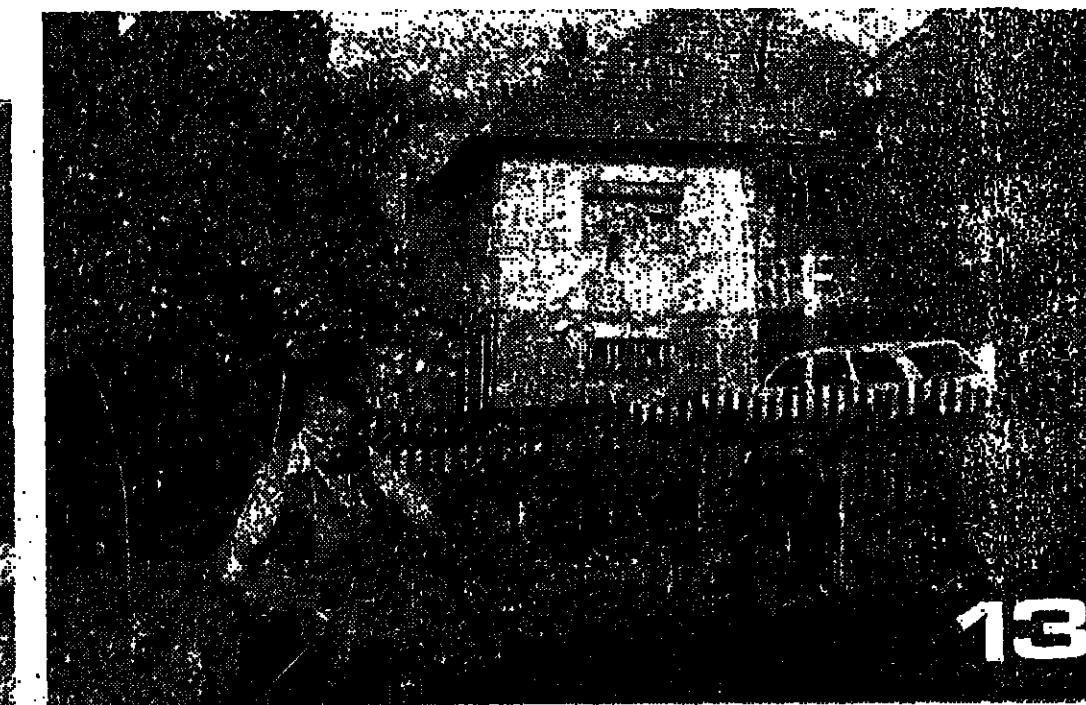
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12 A country kitchen is often bigger than one in a town apartment. Anyway, the kitchen used by the family of Ilies Mihai is equipped with all modern apparatuses making a housewife's job easier. Such kitchens are commonplace in this village of industrious peoples.

13 The vegetable garden is present near every house in Corund. It varies in size according to the owner's work capacity. Even in the case of older people, like in our photo, the well tended small garden ensures almost all fresh fruit and vegetables needed by the family.

14 The pottery workshops are often visited by tourists, willing to take with them the souvenir of an authentic Corund pot. Because local craftsmen are among the most famous in Romania.

15 A discussion about hay quality. In the middle, the chairman of the cooperative farm, Zoltan Oláh. Because the people of Corund do not specialize only in pottery. They are also great cattle growers. Animal breeding is earning a lot of money, too.



15

the point of view of quality, the village's housing stock is thus classified: 60 per cent of the houses are in very good state (built in the last ten years) have water and sewer installations, 34 percent are in a medium state and six per cent are in bad condition. The very need of construction made necessary the village's social model and organization sketch exhibited at the ministry. It was designed and made not in a pattern but as a general option for future building solutions. Exhibiting the village's modernization sketch at the ministry, the public debate that followed, the object character of progress prove once more the authenticity of Romanian democracy — important decisions are not made by imposing the people's will, but by asking and involving them, listening to their opinions, considering their wishes and dreams. What happened in Corund happens everywhere in Romania. The local village's modernization and development is understood as an ample, complex, long term process, which does not have a "working front" in future generations. The future is not and must not be considered in haste, but is prepared with deepening thought, in Corund.

G. OSTROVEANU
Photo by M. ALBES

THE "GEORGE ENESCU" INTERNATIONAL FESTIVAL

The 11th edition of the "George Enescu" International Festival is over. For eleven days, between September 16 and 26, Bucharest became a real capital of music, where the public had to choose daily between 5-6 symphonic concerts, recitals and musical theatre shows, carried out in six performance halls. The 54 music events, which took place during this period benefitted by the participation of prestigious Romanian symphony and chamber ensembles, valuable Romanian conductors and soloists, to whom were added foreign groups and conductors and soloists of ten countries. Naturally, the programmes focused on the symphonic, chamber and opera creation of George Enescu, the most important Romanian musician, the founder of the Romanian composition school, under whose oegis this triennial festival is carried out. An important place was reserved to the creation of composers of the post-Enescu generations, to Romanian composers of the present day, but the programmes also included works devoted to

world music, from compositions of the baroque age to those of the 20th century. Thus, a comprehensive panoramic view of the Romanian and world music was organized in all domains and genres — symphonic, vocal-symphonic, chamber, choral, opera, operetta and ballet. At the same time an important round table discussion time was organized on problems of musicology, on which we wrote in a special article, while the Music Critics College of the Association of Artists and Musicians (ATM) published throughout the Festival five comprehensive "Agendas" (one every two days) real illustrated magazines including previews, articles, interviews, declarations, musical news in the country and abroad. By all these events and actions, the eleventh edition of the Festival aroused a vivid interest among the public being inscribed as one of the most successful editions in the 30 year-old history of this festival.

Other personalities of his time were drawn by musicologist Romeo Ghiddeanu of Cluj-Napoca (Correspondence between the Oeuvres of George Enescu and Mihail Sadoveanu) which highlighted the links between the two geniuses of 20th century Romanian music and literature. The young musicologist Gabriel Tomescu (Enescu and Petru, a Friendship Across the Decades), evoking Enescu's relations with the eminent Romanian conductor of world fame Ionel Petru, and by Japanese guest Susumu Tamura (George Enescu and Karol Szymanowski, Two Great Composers) establishing similarities and distinctions between the works of the Romanian and Polish masters. Other aspects concerning Enescu's personality and oeuvre were approached by musicologists Iana Stancu (Discography), Emilia Enache (Films) and Laura Manolachi (Interviews).

In keeping with the overall title of the round table, several participants referred to Romanian musical culture as a whole: from musicologist Vasile Tomescu (Romanian Music in the History of World Culture), to composers and musicologists Vasile Donose (The National-Universal Relationship in Romanian Music) and Smaranda Oteanu (Constellations on the Country's Musical Map), and to musicologist Mihail Cosma (The National Style in Romanian Music) and Constantin Catinara of Braşov (Folklore — The Endless Column of Romanian Musical Creation). A paper whose interest went beyond the established thematic framework was read by conductor, composer and musicologist Mihail

Brediceanu, in which he synthesized the results of his researches on Polymodular Music, two-fold education as a musician and mathematician. Thus, the development of contemporary Romanian music was portrayed and stress was laid on the foremost place its representatives have won on the international musical scene. While the Bucharest Conservatory was hosting this round table, another institution of musical learning in the Capital, the George Enescu Art High School was the venue of a colloquium devoted to the master whose name is featured on the school's frontispiece. In the presence of the pupils, many of whom were accompanied by their parents, headmaster Nicolae Bileurescu made an introductory speech, which was followed by debate in which took part a number of professors well known in Romanian musical life as composers (Otilia Nemescu, Liviu Dandari, Adrian Iorgulescu) or musicologists (Carmen Stancu, Dumitru Avakian, Viorel Creţu). On that occasion emphasis was laid on Enescu's contribution to the music and performing arts of the 20th century, as well as to the foundations of contemporary Romanian musical life. Through all these substantial papers and debates, Romanian musicology made a valuable contribution to the knowledge of the numerous facets of George Enescu's oeuvre and musicianship as well as of contemporary Romanian musical life viewed as a whole and in the context of international musical life.

EDGAR ELIAN
Photos: A. ROSENTHAL

MUSICOLOGY AT THE FESTIVAL



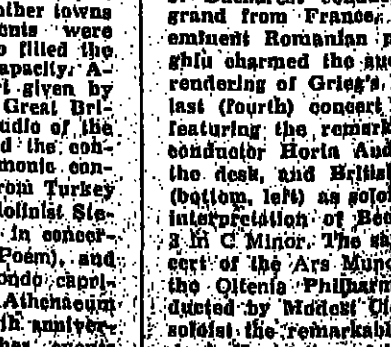
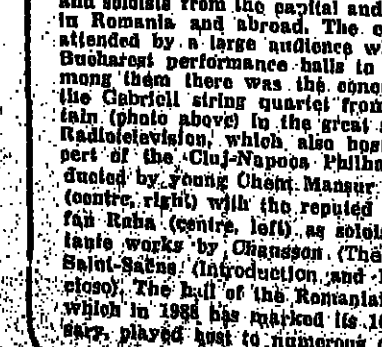
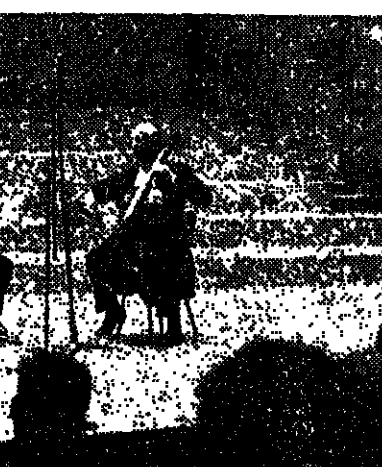
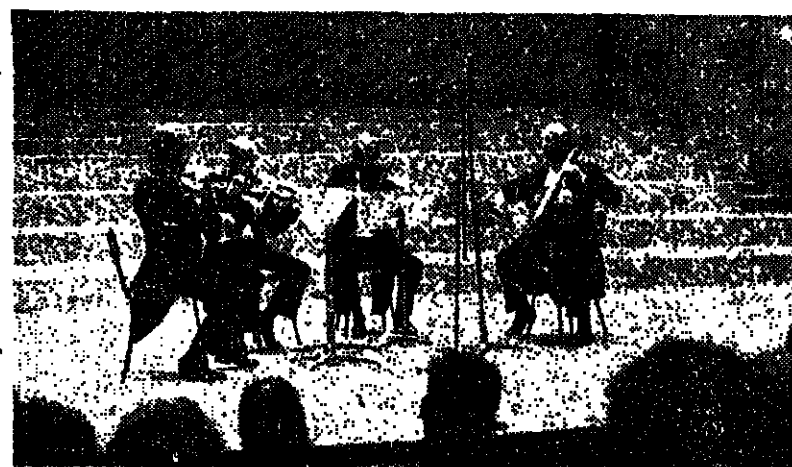
It has become a tradition of the last few editions of the George Enescu International Festival that the overall programme should include symposiums, colloquia and round tables on musicology having in view the multiple aspect related to the personality of George Enescu as a composer and interpreter but also the various questions raised by the Romanian music composed by the post-Enescu generations up to the present one.

Continuing this tradition, the present edition — the 11th — of the triennial festival taking place under the aegis of the great Romanian musician has scheduled a round table on Aspects, Values and Prospects in the Development of Romanian Musical Culture, organized by the Council of Socialist Culture and Education, in collaboration with the Union of Composers and Musicologists, in the George Enescu hall of the Bucharest Conservatory. Thus, 32 papers were presented by Romanian musicologists, composers and performers from Bucharest, Cluj-Napoca, Iaşi, Tîrgu Mureş and Braşov to whom four distinguished guests from abroad were added: Roman Vlad from Italy, Ruffina Lettes from the USSR, Susumu Tamura from Japan and Walther Labhard from Switzerland. An evening of Music, a Component of our Socialist Nation's Culture, read by university professor Nicolae Călinaru, chairman of the Union of Composers and Musicologists and rector of the Cluj-Napoca Conservatory in Bucharest, most papers were devoted to the analysis of defining aspects of Enescu's oeuvre or to revealing certain hitherto unknown elements of his activity as a composer and interpreter. Thus, after the eminent Romanian-born Italian musicologist Roman Vlad synthesized George Enescu's Place in 20th Century Music, the theme was resumed, but in a different perspective, in the paper Enescu's Oeuvre in the Musical Culture of Our Century delivered by Ruffina Lettes, a well-known Soviet musicologist who has long been concerned with studying Romanian music. Noting the concurrence of the festival with the centennial celebration this year of the Romanian Athenaeum where concerts and recitals took place evening after evening during the 11-day festival, musicologist Viorel Creţu, in the paper George Enescu in the Context of the Romanian Athenaeum Centennial, evoking the unforgettable moments provided by George Enescu's personal anniversaries as a performer under the dome of the venerable Bucharest cultural and artistic establishment.

Interesting overall views of Enescu's oeuvre from various angles were offered by composers Doru Popovici (The Innovative Spirit of Enescu's Orchestration) and Dan Volescu (George Enescu and the Spirit of Neoclassicism), musicologists Ioanî Bava (Enescu and the Culture of His Time), Mircea Votcaş (New Contributions to Turning to Advantage Enescu's

Legacy), Desplina Petrescu (Lyric Aspects in Enescu's Works), Maria Marian (The Prepatentonic Basis of Enescu's Melody) and the Swiss guest Walther Labhard (Stylistic Nuances in George Enescu's Piano Music), while questions related to Enescu's performing art were treated by musicologist Alfred Hoffman (Enescu and Contemporary Interpretive Aesthetics) and by conductor and musicologist Eugen Frîncu (George Enescu Conducting Romanian Music at the New York World's Fair in 1939). Dealing with Enescu's

Enescu works, composer Wilhelm Berger anticipated An Enescu Premiere — The C Major Quartet, which was presented at this year's festival, musicologist Titus Malcescu analyzed Manuscript Variants of the String Quartet in E flat major Op. 22 No. 1 by George Enescu, and musicologist Otilia Nemescu spoke about the anniversary of 80 years since the writing of the Romanian Poem, a work bearing the opus number 1 in the catalogue of Enescu's works. Interesting parallels between Enescu and



THE LAST CONCERTS

The second part of the George Enescu International Festival included a number of symphonic and chamber concerts given by orchestras, chamber ensembles, conductors and soloists from the capital and other towns in Romania and abroad. The events were attended by a large audience who filled the Bucharest performance halls to capacity. Among them there was the concert given by the Gabriel Strînău Quartet from Great Britain (photo above) in the great studio of the Radio-Television, which also hosted the concert of the Cluj-Napoca Philharmonic conducted by young Chemi Manşur from Turkey (center, right) with the reputed violinist Steluta Rada (center, left) as soloist in concertante works by Griegson (The Poem), and Saint-Saëns (Introduction and Rondo capriccioso). The hall of the Romanian Athenaeum, which in 1984 has marked its 100th anniversary, played host to numerous other events

which reaped tremendous success. Of these we should mention the second symphonic concert of the George Enescu Philharmonic of Bucharest conducted by Francesco Grand from France, as part of which the eminent Romanian pianist Valentin Gheorghiu charmed the audience with his rendering of Grieg's Piano Concerto and Liszt's (Fourth) Concerto of the same orchestra, featuring the remarkable young Romanian conductor Horie Andreescu (center, left) at the desk and British pianist Michael Ball (top, left) as soloist who gave a brilliant interpretation of Beethoven's Concerto in G Minor. The same hall hosted the concert of the Ars Musica chamber ensemble of the Cluj-Napoca Philharmonic, conducted by Mihail Ghiddeanu and featuring the remarkable Yugoslav pianist Zvezdana Kank (top, right).

AGRICULTURE AND THE QUALITY OF THE ENVIRONMENT



GOLD... WINES

The Czechoslovak locality of Mikulov has recently played host to an important international wine competition which was entered by countries famous for their vineyards such as France, Spain, Italy, Hungary, Yugoslavia, the USSR etc.

Romania, which has a remarkable viticultural stock with well-known wines that are in great demand in dozens of countries in the world, presented in the competition 14 wine samples and a champagne sample, from prestigious vinegrowing areas.

The international jury, which included the renowned Romanian specialist professor engineer Valeriu Cotes, DSc, was extremely exigent, as proved by the fact that only about a quarter of the total samples presented by the competing countries were

awarded medals. It is noteworthy that all 12 Romanian samples claimed medals, which is quite a feat. Three Romanian wine samples — one of White Fetească de Iaşi and two of Grasă de Cotnari — won the Great Gold Medal. Two of these samples were declared champions, and one super-champion of the prestigious international viticultural event at Mikulov. The members of the jury — outstanding personalities in the field — were particularly impressed by the natural and authentic quality of the wines, by the perfect relation between the vineyard, the grape variety and the wine.

This comes as a new achievement of the Romanian winegrowers who, year after year, win the honours of important international contests. (Top photo).

Thuraxin is a substance for farm use with very good results in pest control, containing low doses of pest killers. Other Romanian substances with low polluting effect are Muscadin A and Trichotelenin used against the white insects found in hothouses and coleopterases.

At the same time with improving the quality of agrochemical products for environment protection, the Romanian specialists obtained important successes in controlling disease and pests through biological means. Ways were studied of directing ecologic rotations

within agroecosystems, of lighting against dangerous species according to the groups they belong to, of inoculating and consolidating genetic characters with a view to improving plant resistance to disease and pest attacks. Methods were established through systematic analysis

and mathematical modelling for forecasts-warnings at zonal and national scale. For the protection of sugar beet cultures some pests are controlled by means of a wasps in several farm research stations.

G. OSTROVEANU ■

THE DANUBE DELTA'S TOWN

The main street of Tulcea has remained the Danube. Tens of ships bearing the most varied colours pass on this water boulevard.

In the town's ports — the town has several ports — both river-going and big sea-going ships can moor. In one of the ports' berths big tonnage ore carriers land and unload goods from or for the big metallurgical plant in town. Another port is specialized in receiving refrigerating ships which transport fish caught in ocean waters. The Tulcea shipyard has its own berths where ocean fishing ships are repaired and built. The town's economic life includes an alumina factory, and a canned fish enterprise.

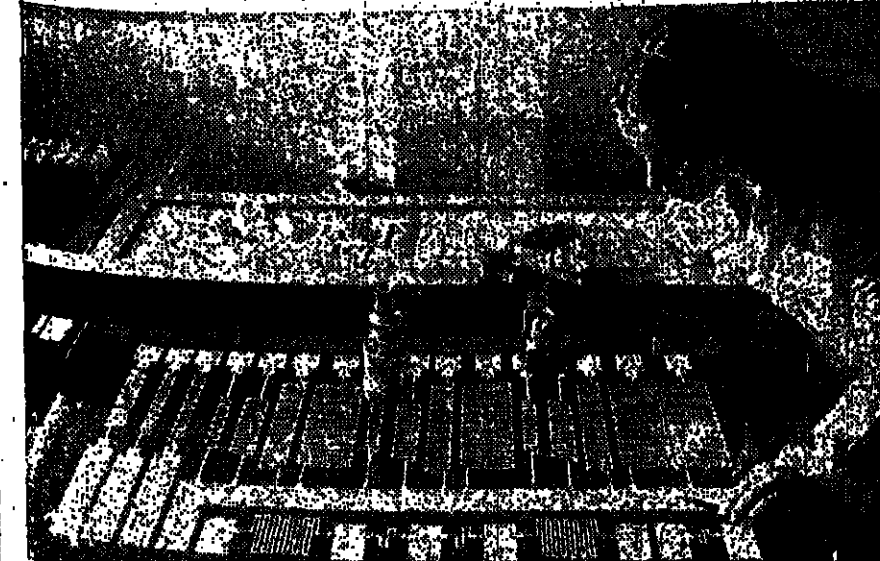
Created and developed in the last two decades, these industries have determined a four-fold growth in the population. Naturally, thousands of new apartments have been built every year. For example, 620 apartments have been built. In our photo: the Danube's esplanade in front of Tulcea passenger port (photo below).



STUDENT MICROELECTRONICS

At the Electronics and Telecommunications Faculty of the Polytechnic Institute in Bucharest, the electronic devices, circuits and apparatus department boasts a research laboratory (top photo) and a small-scale production line.

After attending some specialist lectures (this layer technology, integrated linear circuits etc.), the students supervised by professor Mihail Drăgănescu DSc, corresponding member of the Romanian Academy, by the other professors, have their first contact with hands-on training. This second stage is successfully carried out at the Electronics Enterprise, the Industrial Electronics Enterprise, the Microelectronics Enterprise, the Computer Enterprise etc. (below photo).



KINDERGARTENS OPEN AGAIN

On September 15, Romania's school-going population reached 5.7 million, which represents 24.7 percent of the country's entire population. In this category are included 83,250 children who go to 12,680 kindergartens existing in all country localities. In fact, over 80 percent of the total number of pre-schoolers (3-5 year-olds) are included in these social and

at the same time instruction and education institutions. Certainly numerous and varied activities await the children: modelling, cutting, drawing with coloured pencils and water colours, games, dancing (left and bottom photos). Everything is done under the attentive supervision of over 23,000 teachers (top photo).



FARMING TOOL

A new farming tool designed by the Institute of Technological Engineering and Research for Mechanization in Bucharest has been introduced in the series production of the Mechanization Enterprise of Oradea. The new device — a rotational-till harrow — is different from the conventional type used so far because it ensures a better quality of work preparing the soil by working the earth in a continuous belt on any kind of soil including very stony soils caused by drought. The soil is prepared for sowing just one week after the harrow. Its fabrication in three variants, each with its own width, allows operators to attach it to as many types of tractors.

THE GAMES OF THE 24TH OLYMPIAD

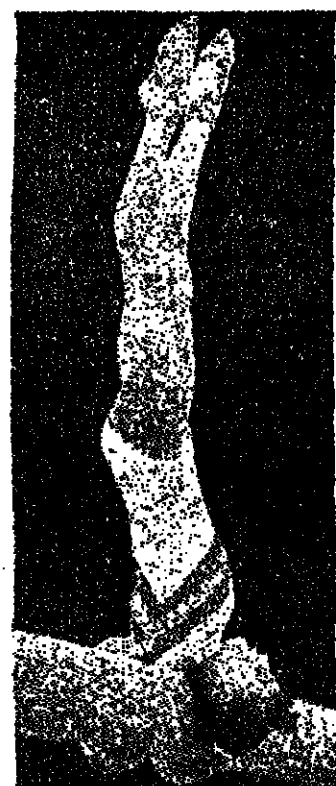
In our last issue we informed you that the Romanian sportsmen won three medals during the first days of the Seoul Olympic Games, of which a gold through Sorin Babit in the pistol 60 shots event and two silver medals through the women's gymnastics team (Daniela Silivas, Aurelia Dobro, Gabriela Potarac, Celestina Popa, Camelia Voinea and Eugenia Golea) and swimmer Noemi Lung in the 400 metres medley. This rather modest start was fortunately invalidated during the ensuing week, when the Romanian sportsmen won another 18 medals, namely four golds, seven silvers and seven bronzes. In fact, in only two days, on Saturday and Sunday, the Romanians took 16 medals. The best performance was scored by Daniela Silivas

On the seventh day of the Olympic Games, women's gymnastics was again the centre of attention. It was time for the women's individual overall gymnastics competition involving 30 gymnasts who scored the best marks in the compulsory and optional exercises. However, the main clash opposed Daniela Silivas to Elena Shushunova (the USSR). In the long run Daniela Silivas had in content herself with the silver medal, only 0.025 points behind the Soviet, an unprecedented difference between the first and the second place in the history of great competitions.

Last Sunday, Daniela Silivas took her revenge in the all-around final, by winning three golds and a bronze. To be more specific, gold in the uneven bars, beam and floor exercises and bronze for her vault performance. Commencing on her outstanding achievement under the title "Daniela's Golden Bunch", TASS noted, among others, that "Silivas proved extremely confident and highly skilful in her spectacular exercises". The Japanese Kyodo news agency reported that "Romanian gymnast Daniela Silivas, who moves like an elf, won three Olympic titles, while the winner of the individual overall title, Elena Shushunova was outshined this time, merely getting a silver and a bronze. On the uneven bars Daniela Silivas presented an extremely difficult exercise winning the gold medal with a perfect score of 20.00. She was announcing a fascinating routine, excellently performed on the beam and on the floor". In its turn the Spanish EFE news agency mentioned that "Romanian Daniela Silivas dominated the women's all-around final in an impressive manner. In a single day this wonderful girl was crowned three times with the title of Olympic champion".

A couple of minutes after the conclusion of the contest, Daniela Silivas declared: "I am happy! Together with my colleagues I have succeeded in showing the world that the Romanian school of gymnastics was not just a passing phenomenon, but it has the power to create new generations of high class performers". I was say-

ing that Daniela Silivas won another medal, this time a bronze, on the vault. In the same event, teammate Gabriela Potarac won the silver medal. Potarac also won a bronze on the beam. Mention should be made of gymnast Marius Gherman's feat: a bronze medal on the horizontal bar.



On Saturday, the first round of rowing finals included seven of the 14 events. Romanians Olga Homeghi and Rodica Arba brilliantly met all expectations by winning the pair oars without coxswain by a large margin. They proved again their high class, after winning the world title last year. Homeghi and Arba led from the start to the end of the race, and the contenders being able to threaten their position.

Though in a last-minute formula because one of the crew was sick, the women's double scull crew of Veronica Coganu and Elisabeta Lipa managed to win the silver medal. Excellent too was the performance of the men's four oars with coxswain crew (Dimitrie Popescu, Ioan Sinep, Valentin Robu, Vasile Tomotoga + Ladislau Lovrensch), who also finished second. Mention should be made that the cox, Lovrensch, won this Olympic medal at the age of 50.

After five consecutive victories in the great competitions of the year, Dănuț Dobro and Dragos Neaghi failed to win the Olympic gold in the men's pair oars without coxswain. However, they took the silver medal, which is not so bad, taking into consideration that both of them are only 21 years old.

The women's four oars with coxswain crew (Marloara Trasca, Veronica Necula, Heria Anifan, Doina Balan + Ecaterina Oancu) passed as unbeatable this season before the Olympics. Unfortunately, their first lost race happened to be the Olympic final, in which they had to settle for the bronze medals.

On Sunday another four Ro-



manian crews (the women's eight oars with coxswain, quadruple sculls and single sculls, as well as the men's pair oars with coxswain) rated among the pre-race favourites entered the finals. Unfortunately only the first two fulfilled expectations by winning medals. The women's eight oars with coxswain (Doina Balan, Marloara Trasca, Veronica Necula, Heria Anifan, Adriann Nezan, Mihaela Armasescu, Rodica Arba, Olga Homeghi and Ecaterina Oancu) who last year won the world title, came very close to winning the gold, but in the long run they had to settle for the silver.

In a fiery clash the women's quadruple scull (Anisoara Balan, Anisoara Minea, Veronica Coganu and Elisabeta Lipa) finished third. The Romanian men's coxed pairs crew finished fourth, while our representati-



Daniela Silivas, winner of three gold medals and one bronze, features in two photos: on the beam with a premiere figure (middle, left) and happily smiling after her performance (top). Rodica Arba and Olga Homeghi (middle, right) won the gold for pair oars and silver for eight oars with coxswain. Seven other members of the Romanian Olympic rowing team won silver and bronze medals: Elisabeta Lipa and Veronica Necula (double and quadruple sculls), Marloara Trasca, Veronica Necula, Heria Anifan, Doina Balan and Ecaterina Oancu (four and eight oars with coxswain).

The Romanian boxer Daniel Dumitrescu (featherweight) reached the semi-final round of the tournament, securing himself at least the bronze medal. Whether this medal is to be considered a more valuable one depends on his performance in the bout against South-Korean Lee Jae Hyun.

Upon the conclusion of this issue the Romanian canoeists and kayakers are getting in line for the semi-finals of the 1,000 metres event. All the three Romanian crews engaged in the 500-metre event have already won the right to take part in the final race.

Only 1.3 points less frustrated Sorin Babit of another medal. In the air pistol event he finished fourth, after having reached the second position during the first stage of the contest.

In the history of women's gymnastics only two women gymnasts have managed to score a perfect total of 10 points and the only one is Daniela Silivas. She achieved this feat at Montreal in 1976 and at Seoul in 1988.

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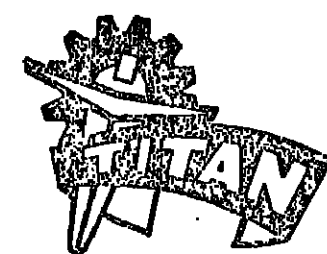
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TITAN — EXCEPTIONAL TECHNOSCIENTIFIC AND PRODUCTIVE POTENTIAL

The Machine Tool and Assembly Enterprise in Bucharest (IMUAB) was founded almost three decades ago, marking the starting point of an impetuous development in the field of machine-tool fabrication in Romania. From a development stage to another, the factory has continuously broadened its production capacity, improving without interruption its technoscientific manufacture means, shaping at the same time technicians, engineers and specialists with high training and vast experience. Thus the passage was possible from the production of small machine tools to that of heavy and very heavy machine tools and units, some of them unique. In this context were included, in IMUAB's flexible fabrication programme, the series of slideway grinders needed by priority projects in the power, oil, metallurgical, car and truck industries, and used in producing, in a special organizational outlook, parts for the construction of nuclear-electric plants. The continuous growth of functional and qualitative characteristics of machine tools and aggregates we produce directly contributed to finding a broad audience — under the TITAN trademark — on markets throughout the world. The Bucharest Machine Tool and Assembly Enterprise is considered the biggest works in the field in Romania, one of the biggest in Europe and even the world. In the following lines we tried to extract several, more conclusive, data from IMUAB's rich record:

A CONSTRUCTIONAL AND TECHNOLOGICAL DESIGN WORKSHOP WITH AN UNPARALLELED ACTIVITY. Our works has its own design sector of great mobility and can ensure in a record time the analysis and design of technological products and processes, the elaboration of technical fabrication know-how, the design and organization of technological fabrication lines, and ensures product quality. The efficiency of solutions elaborated is exigently followed to the stages of tests and experiments in the respective sections in order to bring possible improvements of designed parameters.

ULTRAMODERN, HIGHLY COMPLEX EQUIPMENT. Highly productive processing machines able to ensure highly competitive fabrication means are integrated in the technological process. Most of them are the fruit of the work of IMUAB's specialists, engineers and technicians: SC 85 CPAF 133 NC vertical lathe, AFP 180 boring and milling machine, RU 350-2 PE precision grinding machine, MGO 1200 jig borer, etc. The factory's equipment ensures an excellent quality of execution and of parts



and assemblies bearing the TITAN mark. Control mechanisms, hydrodynamic and hydrostatic bearings, ball pins, technical equipment, tools, and all technical means involved in the fabrication processes have a great PRECISION. One of the sections with a great share in the fabrication process of our factory, with a prevailing role in point of view of "precision" is that of THERMAL TREATMENTS. Equipped with installations at the highest level of world technology, this section contributes to IMUAB's achieving the highest complex technological operations at the highest parameters. In this section too, the high robotization, automation and mechanization degree, a characteristic present in all sectors, makes a special contribution.



MODERN TECHNOLOGICAL PROCESSES. Among them there are: processing by welded parts and constructions by cutting, thermal treatments, metal plating, completion and adaptations at hydrostatic electric and electronic control equipment, subassembly mounting and general mounting, painting, etc.

OVER 250 MOST COMPETITIVE TECHNOLOGIES. These are currently used or recently introduced technologies based on researches and experiments taking into consideration the world's latest technoscientific solutions. Among frequently used technologies we mention: processing of structural parts with lengths varying between 1 and 15 m; processing of hydrostatic installations; processing and assembly of heavy reduction gears of vertical lathes; processing and assembly of ball pins up to 10 m long etc.



ing and assembly of ball pins up to 10 m long etc.

INTEROPERATIONAL TRANSPORT. ANOTHER FACTOR OF PRECISION AND OF RAPID FLOW ASSEMBLY OVER SHORT TERMS. The multitude of technological operations and the considerable length of complex machines imposed the use of adequate interoperational transport along factory sections favouring a rapid assembly in the best conditions.

ASSEMBLY AT IMUAB REPRESENTS A REAL SOURCE OF QUALITY AND RELIABILITY. For our

assembly and general mounting, our factory is equipped with test and control stands, special apparatus (control, test and devices), most for made at IMUAB, including forms for assembly, test and display. The finished quality is ensured by adequate parallelism made in modern, automatic installations which create maximum protection. The factory attention paid by the factory to functional and finishing tests is very adequately illustrated in detail, over 30 per cent of the total assembly operations are test and control operations, some of them carried out in extreme conditions.

REMEMBER: THE TITAN TRADE MARK MEANS QUALITY
PRECISION. RELIABILITY.

TITAN — YOU CAN SUBSTANTIALLY CONTRIBUTE TO YOUR ENTERPRISE'S SUCCESS BY USING THE MACHINE TOOLS AND ASSEMBLIES BEARING THIS EMBLEM

Thanks to its strong technoscientific and productive potential, IMUAB has an extremely flexible and diversified manufacturing programme which is based on thorough market research and the monitoring of world trends in machine tool and unit building. The products of our plant are characterized by QUALITY, ACCURACY and RELIABILITY, which make them highly competitive. The technoscientific and productive performance of our plant is followed with great interest in all parts of the world; as a result, our products have steadily and constantly penetrated the main markets of the world, rivaling those of firms that boast long-standing traditions in the field. At present, thanks to their notable performances, our machine tools and assemblies are in great demand with end users in more than 40 countries on all continents such as Australia, Belgium, Brazil, Canada, Czechoslovakia, People's China, England, France, the GDR, West Germany, India, Japan, Pakistan, Spain, the USA, Turkey, the USSR etc.

boring axis ranging from 18 mm to 200 mm, with numerical control or data display • slideway grinders (two types) with the width of the processing part ranging from 1,000 to 2,000 mm and the length reaching 5,000



mm • the centre of processing (two types): with the processing diameter of 130 up to 180 mm • longitudinal cutters with yoke (various types) with the width of table ranging from 1000 to 2000 mm • jig boring machines (three types) with the width of the table ranging between 500 and



1,500 mm • jig grinding machines (two types) with the width of the table ranging between 500 and 800 mm • external and internal spline grinding machines (three types) with a diameter of 150 mm and a length of up to 2,000 mm • crankshaft machines with a length of 500 mm • cam profile grinding machines (five types) with the length of the cam axis ranging between 500 and 1,000 mm • universal grinding machines (four types) with the diameter of the part of 500 mm up to 1,000 mm • concentrating grinding machines designed for the manufacture of parts needed by car-making industry • crankshaft cutting machines (two types) • joint screw-cutting machines • accessories • flexible cells • transfer lines, etc.

DO NOT FORGET

• IMUAB's highly trained and experienced specialists deliver you products on a turn-key basis as well as complex

technical assistance, from training for a correct usage of machines to deliveries of parts to maintenance and even modernization operations on equipment supplied by other firms.

• The machine-tools and aggregates carrying the TITAN trademark are matchless in point of endurance and efficiency, providing maximum safety in exploitation, basing multiple possibilities of exploitation comfortable handling, unique accuracy under maximum pressures, maximum complexity of control during all exploitation cycles.

• IMUAB is ready to negotiate with trading companies or specialized firms with a view to concluding mutually rewarding agreements, for either the sale or manufacture of TITAN machine-tools and aggregates, according to documentation made by the plant or provided by our partners, guaranteeing the execution of the most complex assimilation in the best possible conditions.

THE AFP 200-4 A HORIZONTAL BORING AND MILLING MACHINE — ANOTHER TITAN NOVELTY UNANIMOUSLY APPRECIATED BY SPECIALISTS EVERYWHERE

This numerically controlled, digital-display spindle machine is meant for working cast-iron types welded or cast parts of large size and weight. It can work also surfaces that are deep inside the carcass thanks to the spindle and boring shaft's possibility to move longitudinally. AFP 200-4 A (NC) can perform boring, milling, punching and tapping operations and is provided with a traversing stand, with the vertically sliding headstock on the right side of the standard. The slide is provided with three hydrostatic guides and counterweights. The speed-change box has three speed ranges. To avoid the headstock's accidental sliding, the latter is equipped with a counterweight electromagnetic brake. With a view to ensuring high part machining accuracy, there are hydraulic systems

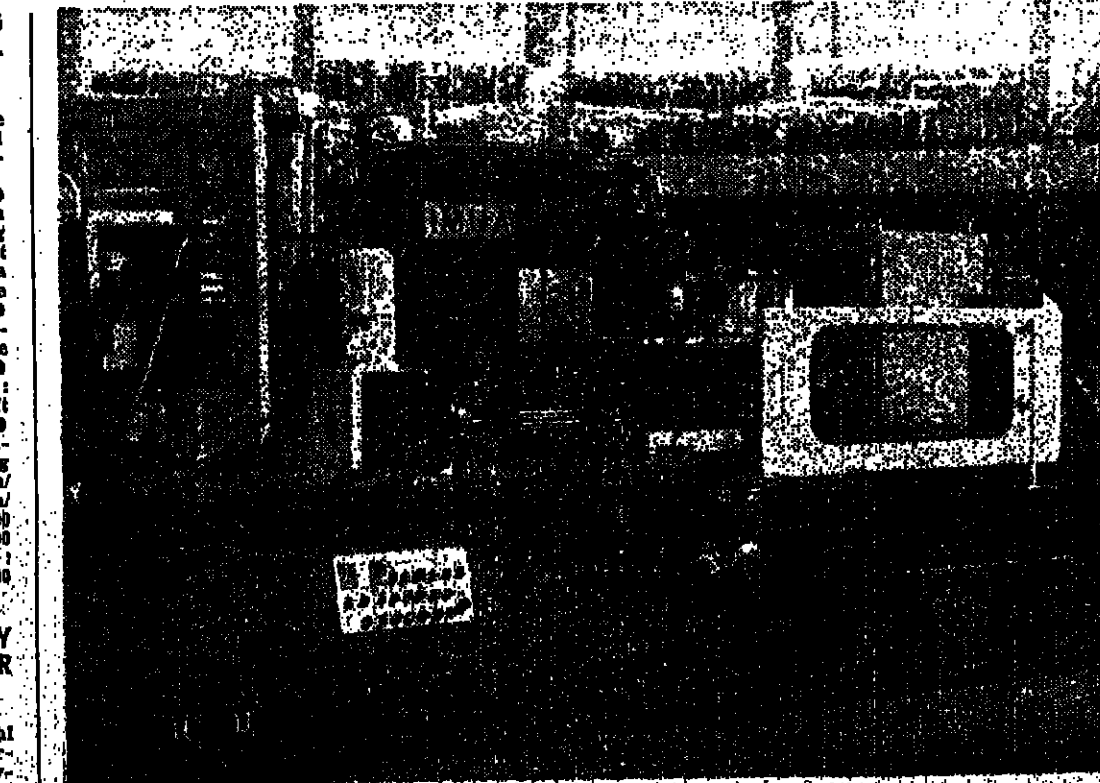
compensating the fall of the spindle and stockhead and equilibrating the centre of gravity of the stockhead.

TECHNICAL FEATURES • boring shaft diameter: 200 mm • central bore of the boring shaft: 150 X 50 • cutting shaft diameter: 250 mm • pinola section: 520 X 600 • spindle speed range: 2-500 rev/min • power of the main driven motor: 75 kW • stand stroke: AXIS A: minimum 6,000 mm • stockhead stroke: AXIS Y: 3,000-4,000 mm • boring shaft stroke: AXIS Z: 1-200 mm • pinola stroke: 1,500 mm • continuously controlled cutting speed ranges: feed: AXIS X: 1-2,000 mm/min; AXIS Y: 1-2,000 mm/min; AXIS Z: 1-4,000 mm/min; AXIS W: 1-4,000 mm/min • clearance: 1 (L X 1 X H) 15850 X 5300 X 2800 mm • machine weight 100 t.

THE CURRENT OUTPUT OF IMUAB MASSIVELY DELIVERED TO ITS NUMEROUS BENEFICIARIES UNDER THE PRESTIGIOUS MARK OF TITAN COVERS:

• boring-and-turning mills (nine types) able to process parts with diameters ranging between 2,000 mm and 16,000

mm, with or without numerical control and data display • boring-and-cutting lathes (five types) with the diameter of the



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